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To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE Case, which I have now the honor to request you will insert in your next Number, I have called GASTRODYNIA; but I shall not dispute the propriety of the term. From the peculiar circumstances under which it was compiled, it claims the attention of the medical world; and I earnestly beg your Correspondents to offer their animadversions upon it, as they regard that liberality of sentiment, and urbanity of manners, which ought to direct the conduct of physicians in their intercourse with one another. What further reflections I may have to offer on this extraordinary incident in my professional exercise, for obvious reasons, must be reserved for a future opportunity. In the mean time, your Readers will give me credit for a small share of passiveness of temper, that I did not provoke a quarrel under the roof of a patient. I have somewhere read, that "a soft answer turneth away wrath, but grievous words stir up anger."

I am, &c.

Newcastle, Aug. 1, 1804. T. TROTTER.

ON Thursday, Jan. 12, about three in the morning, I was called by the watchman to visit Mrs. ———, in the neighbourhood; a servant girl immediately followed, and called out that her mistress was dying. I found the lady sitting up in bed, and writhing with pain. This happened to be the fifteenth day from her lying-in, of her third child. The pain was felt in the *epigastric region*, towards the *right hypochondrium*, under the last rib, and darting from thence, acutely, upwards to the shoulder of the same side. The pulse about 140, of moderate strength. She had

had a *diarrhœa* upon her. All circumstances attending the labor had been favorable.

These pains, it appeared, began the preceding evening, had increased gradually till three in the morning, when they became intolerable, and made her cry out with great vehemence. Being an entire stranger to the lady, I enquired of her husband, if, when in her usual health, she was subject to complaints of the stomach, such as, uneasy indigestion, flatulence, constipation of bowels, &c. He answered in the affirmative. I further asked, if gout was known in her family. He said, her father was subject to gout.* And, lastly, I enquired if her medical attendants, at any time, had hinted their suspicion of *gall stones*; or if *jaundice* had ever been noticed. He did not remember any thing being hinted on these subjects.

I gave her immediately Tinct. opii, gt. 30, Mag. ust. ʒß. Sp. menth. pip. ʒij. aa. fontanæ ℥j. ft. haust. In fifteen minutes another draught, with half the quantity of these ingredients, was given. The pain became more endurable, and she ceased to cry out. In half an hour she was considerably relieved; and the pain of the side was only felt on a deep inspiration.

About an hour after my arrival, Dr. Clark and Mr. J. came in; both of whom had seen the lady the night before. I informed these gentlemen of what I had done; and freely imparted to them my opinion of the case. I had just told the husband of the lady, that I conceived the pain to be of the spasmodic kind; depending on debility and an irritable nervous constitution, accompanying the puerperal state. Dr. C. spoke of febrile rigors, cough, and pleuritic stitches, and the danger of puerperal fever; but he gave no decided opinion. It is true, the patient said she had frequent shiverings; was often disagreeably hot, and sometimes in profuse perspirations. But, with such a pulse, how was it possible to suspect a *pleurisy?* These symptoms and feelings only indicated debility, and an accumulated nervous sensibility as peculiar to a lying-in woman; and to be referred to those changes, evolutions, and sympathies in the uterine and mammary organs, after the birth of the infant. A draught with forty drops of tinct. opii was prescribed, lest the pain should return; a blister was

* Two or three days after this, Mr. —— informed me, that his wife's mother was then ill of a complaint which her London physicians called Gout.

was laid on the part affected: A *purging enema* to be followed by an anodyne one, and a *purging mixture,* were also ordered.

About noon the pain returned, and I was sent for. I gave the opiate draught immediately; and ordered a stimulating *enema* of *asafœtida,* &c. to be administered. The pain became easier and died gradually away.

We met in the evening; the patient had three motions in the course of the day, and rather copious. Dr. C. spoke of the propriety of *brisk purgatives.* I saw nothing in the case of the patient that could indicate *brisk purgatives.* The bowels for some days had been very lax, and the lady was much debilitated. Dr. C. would not admit that she was reduced in strength; and said, if you chuse to enquire you will learn that this woman has been indulging in very strong diet. He concluded a long harangue on that subject, by saying, "Your lying-in women constantly eat too much; these London ladies are all full-livers; is your wife a Londoner?"—My wife not being a Londoner, did not come within the pale of his sarcasm. On making enquiry about our patient's food, I was told by the young lady who attended her friend, that it consisted almost of slops, such as tea, coffee, calf's-foot jelly, veal broth, &c.; these in small quantity, and on no day had she been able to eat above half the wing of a fowl. To these articles are to be added three small tumblers of porter; her appetite was certainly much impaired.* All this day the urine was natural.

13th. Friday. About seven in the morning I saw our patient; Mrs. —— had passed a most restless night; her stomach had rejected every thing; and what came up was so sour, that it felt like taking the skin off her throat. Pulse 150, rather low: she complained of great sinking, and said she could not live long in her present condition. I called for a little brandy in a cup; and having inflamed it, I allowed the one half to be consumed. While I was preparing this simple prescription, she discovered great dejection of spirits, and appeared much exhausted. I assured her of immediate relief. She swallowed one mouthful of biscuit soaked in the warm brandy, and with it

about

* The experienced accoucheur who attended the labour, recommended a nutritive diet, without which he considered so delicate a frame to be unequal to the office of suckling a child.

about four or five tea spoons full of the liquor. These she retained; the vomiting did not return; and in half an hour she took some coffee and toast.

Between nine and ten o'clock the pains of the side and shoulder returned, but not so acutely painful as yesterday. Dr. C. now expressed his opinion that the pain was PLEURISY, and that bleeding was the fittest remedy. Such a declaration astonished me: A pleurisy requiring venæsection, with a pulse beyond 150! I think I heard Dr. Clark say the pulse was 160 by his watch. Blood to about sixteen ounces was taken away: as the first cupful flowed, she said she felt easier, but made no farther expression to that purpose during the bleeding. The pains, as before, declined gradually in the course of the day. I am rather inclined to believe, if Dr. C. had seen this lady at seven in the morning, under the exhaustion, languor, and dejection of spirits, from the sleepless night and constant retching to vomit, that he would have thought bleeding as *little short* of destroying life.

14th and 15th. Saturday and Sunday passed under much uneasiness of bowels, rather than pain, with frequent stools. A draught with colombo and mag. ust. which had been used since Thursday, with an opiate at bed-time, were the chief medicines. Pulse 120; nights restless. The urine, for the last two days, was turbid, as usual where large doses of opium were taken.

I was this day asked by the husband, whether I entertained the same opinion I had at first of his wife's illness. I replied, that I had seen no reason for changing my original sentiments; they were now more confirmed.

16th, Monday. I was called up about four in the morning. I found Dr. Clark and Mr. I. in the house. The pains at the right side and shoulder had returned. Pulse 140. Dr. C. again proposed bleeding; he said it had removed the pain before, and was still the fittest remedy. If I was surprized at the former mention of blood-letting, I was now confounded. There did not appear to me a single symptom to justify it. I asked his explanation. He could give none. I begged he would cite any authority for bleeding in such a case. He answered evasively; but added, that his own practice convinced him he was right. He narrated the case of a Mr. D——ll, where large bleedings had been used; but it had not the slightest analogy to our patient's situation. The common effort of respiration had never been impeded here; there were no dyspnœa, or oppression about the breast; the expectoration was free;

nor

nor had I ever heard the patient cough during any of my visits. I said, if the disease were pleurisy, as you think, would it not have been aggravated by the large doses of opium taken on the former days? Would you administer opium on the accession, and during the inflammatory stage of pleurisy? He answered, that he had always been in the practice of giving opium from the very first attack, and always observed the *best effects* from it! I reminded him of the lady's naturally weak frame, which I had now learned was of the most delicate cast. I mentioned the debilitating effects of her confinement; the loss of blood which unavoidably attends the most fortunate delivery, as well as what she lost by the former bleeding: I spoke of the very lax state of her bowels for some days past; the acute pain she had suffered; her sleepless nights, and profuse perspirations. Against all these he remained immoveable; and repeated the confidence he gained from his own practice. I went on: Do you then mean to contend, that there is no appeal to first principles in our art? Are the authority of the learned in our profession, the wisdom and experience of ages, to be overthrown by an opinion of either yours or mine, that rests on no foundation? Can you support your method of cure by any practical writer on pleurisy, such as Sydenham, Huxham, or Cleghorn? He offered to appeal to none of these. I quoted the celebrated Aphorism of Hippocrates, in defence of my arguments, "*Qui acidum eructant, non pleuritici sunt.*" If there is a *truism* in medicine, I said, that had obtained the consent of physicians in every age, it is this aphorism; and is exactly in point with our patient's case. He evinced no approbation for the judgement of the Coan Sage; nor did he seem disposed to quit the ground he had taken at the beginning of the conversation. I further asked him, if he thought it were possible for an inflammatory affection of the pleura, requiring blood-letting, to exist in the body with a pulse at 146? He replied, "I allow that the inflammation could not be very active with such a pulse." Then do you call bleeding a passive remedy? "I still think bleeding the best remedy here." This conversation lasted upwards of an hour. The lady admitted that her present pains were by no means so severe as when I first saw her.

About twelve ounces of blood were taken from the arm. The lady was repeatedly asked while the blood flowed, whether the pain of the side felt easier; but she persisted to the last that she felt no relief. Although she lay in

the horizontal posture, towards the conclusion she became very faint; but syncope was prevented by volatile salts and a little Madeira wine. The last words the patient uttered as we left the room, were, "*indeed, I feel no easier.*" We retreated indeed without the honor of a triumph. The former blood had been thrown away by mistake; but whether the other gentlemen inspected the last I cannot tell; I heard nothing more about *cupped surface or inflammatory crust.*

Several loose motions took place this day. In the evening I proposed giving wine, and diminishing the opium; it was not agreed to at this visit. The night draught was repeated, and she was ordered the following purgative mixture.

℞. Natron. tart. ℥j. Infus. tamarind. ℥iv. Mannæ ʒiv. M. Sign. A table spoonful of this mixture to be given every two hours till a motion is procured, beginning in the morning, if the bowels have not been opened in the night.

17th, Tuesday. Mrs. —— passed a restless night. She had six motions in the course of this day, resembling coffee grounds, without any mixture of fœcal matter. She complained of great uneasiness of bowels, with much noise and flatulent distension. This day three half glasses of Madeira were taken. Medicines as before.

18th, Wednesday. Very restless last night; bowels uneasy and painful from flatulence. The pains of the side and shoulder returned as before, about eight in the morning. Dr. C. was out of town. To ease the pains, I ordered thirty drops of tinct. opii to be added to the first day draught, and forty drops of æther; and fifteen drops of the tinct. with the same quantity of æther were put in all the other day draughts. A warm plaster was laid over the part affected.

There were languor and depression about our patient this morning which I did not like. I urged her to continue a half glass of Madeira frequently. The pain was soon mitigated, and died away in the course of the day, as it had done before. In the evening she was easy, and appeared disposed to sleep.

At my morning visit, I sent for the cook, and directed her how to prepare beef-tea for her mistress, as strong of the meat as possible. This was done not only for the purposes of nourishment, but as being of an animal nature, was best suited to check that fermentation in the stomach and bowels, that seemed to convert all her other food into

flatus

flatus and acidity. She took sufficiently of it throughout the day.

19th, Thursday. Mrs. ——— had a good night for the first time, having slept in all six hours. She felt much refreshed. The pulse was now under 100; it was from 96 to 98. I recommended the diet of yesterday to be pursued, and encouraged her with the prospect of a speedy recovery. She had got quit of great quantities of flatus in the night, and felt relief in proportion. The infus. gentian comp. was ordered in lieu of the colombo.

About noon Dr. C. arrived, not having seen our patient for 40 hours. I informed him, that we had gained much ground in his absence. He asked the usual questions of the lady; and was particularly officious in adjusting the windows for ventilation. He expressed nothing immediately on the favorable change in our patient; but when conversing in the adjoining room, he said to me, "*I firmly believe all cases of this kind would soon recover, were they left to moderate diet, airy rooms, keeping the bowels open, and opiates at bed-time.*" I agreed entirely with him; inasmuch as this treatment excluded all weakening evacuations by *bleeding*, and severe courses of *purging.*

We met in the evening; Dr. C. thought the lady so easy and well, that he would not disturb her with an enema this evening. It is to be observed there was no motion this day! The Doctor seemed in a better humour; he was returning to Durham, to visit a stalled prebend; he shook hands most cordially.

19th, Friday. Our patient had a quiet night. Pulse 104. She had an easy motion this morning; Nature appeared to be resuming her office. Dr. Clark and Mr. I. were both absent at the usual hour of consultation. I directed every thing similar to the preceding day. On Wednesday morning I thought the lady in considerable danger; but now, if the irritable state of the bowels were not to be revived by purgatives, her health and strength must quickly return. I believe the attendants of the lady at this time considered her convalescence certain.

Dr. C. came about noon. He was not satisfied that the patient had only one easy motion; he ordered a saline glyster to be thrown up immediately; three very loose stools followed quickly. I was not present.

We met in the evening. The lady was certainly worse, more irritable and uneasy. Pulse 114. The word *Pleurisy* had not been mentioned since the last bleeding. Dr. C. recurred to his opinion, that purgatives were still the best

 means

means of cure; to prevent *Puerperal Fever,* and cleanse the bowels of acrid matter. I said to him, Do you observe any thing that threatens puerperal fever? He gave no direct answer. I repeated, that I saw not the least necessity for purgatives; the uneasy state of bowels here is to be referred to original debility of the intestines; and the irritability of the nervous system is no doubt constitutional, but has been particularly increased by unnecessary bleeding, and too frequent purges. He said in words as nearly as I can recollect, "*I allow that I might have been mistaken, in calling the pain of the side Pleurisy; but long experience in many cases assures me, that purgatives with evening opiates will answer best.*" I agreed with him that the bowels ought to be kept open; but as purgatives must keep the bowels in a constant state of irritation, and drain the body of nourishment, so desirable to be retained under the present circumstances, I could see nothing to justify their exhibition. I proceeded: As you have given up your first opinion, that this lady's disease was *Pleurisy,* what name do you give to her complaint now? "*You mean to oppose my practice; I cannot go on this way; I will leave the patient to you altogether.*" His eyes glistened, and he seemed under considerable agitation when he spoke these words. I was not prepared to answer *unprovoked illiberality;* my attention at the time, was rivetted to the condition of the patient, for whom, in a course of purgatives, I beheld nothing but a train of tortures. Dr. C. went on by saying, that "*Four grains of calomel, to be followed in the morning by a dose of jalap, was the fittest medicine that could be prescribed.*" Such an expression deserved no reply from me, but it made me shudder. I said, that I must maintain my opinion, unless he could produce more satisfactory reasons: if it was to keep the bowels regular, I would agree with him; but purging in so delicate a subject, after a week of suffering, could not be justified. He complained that I differed from him. I answered, that it was as natural for him and I to disagree in opinion, as other physicians had often done before us. Have you not often differed in opinion with Mr. I.? He replied, that they had never materially differed. I mentioned the case of Miss B——, which he had published; and their disputes about the Infirmary; where they had divided the town and neighbourhood on the subject of Fever Wards. The purging medicine that was to begin this *practice,* was as follows:

℞. Sal.

℞. Sal. Ruppell, ʒvj. Lact. amygdal. ℥iv. Sacch. alb. ʒj. M.

Sign. The emulsion. Two table spoons full every hour, till a plentiful easy motion is procured. It is to be recollected, that on this day the patient had a natural easy motion in the morning; three loose evacuations followed the enema; and as we were leaving the house, the nurse announced another. Mr. I. was called up in the night, two more stools having taken place, making in all, *seven* in the space of fourteen hours! I did not see the lady after this evening.

I had now formed the resolution of returning Dr. Clark the compliment, of "*leaving the patient to him altogether,*" as he *politely* expressed himself to me. Immediately on coming home, I wrote a note to the lady's husband, requesting he would excuse me from meeting Dr. C. in the morning, and disavowed the treatment about to be adopted. This left Mr. —— to act as he thought proper. It was no longer in my power to do any good; and to receive a *fee* on other terms would have been dishonourable.

This lady, with all the affection of a fond mother, had promised herself the happiness of suckling her child. When I first saw her she had abundance of milk; but on the last evening, the girl who was drawing the breast, complained that it was now so acrid she could scarcely bear it in her mouth. How could it be otherwise under such a draining mode of treatment?

Mrs. —— had formerly suffered severely from piles, as a consequence of weak bowels. Had I been informed of the circumstance, it would have the more confirmed me against all strong purgatives. And indeed, report says, that these tumours did return, and with them swellings of the limbs, requiring the assistance of flannel rollers. I need scarcely add, that by all accounts, this lady's confinement afterwards, was long and painful.

Observations on Mr. Goldson's Pamphlet; *by* Alexander Herman Macdonald, M. D. *Surgeon in his Majesty's Service. Communicated by* Mr. Ring.

" Vox diversa sonat; populorum est vox tamen una." Martial.

THE appearance of Mr. Goldson's pamphlet at a period when vaccine inoculation seemed to have conquered every opposition, could not but attract the general notice of the public.

Among no class of men was the surprize so much excited, as among the medical profession. They had witnessed the repeated triumphs of vaccine inoculation, and the downfal of those arguments which were once suggested by the sophistry of a Marcus Herz, the ignorance and self-interest of a Vaume, and the ridicule of a Moseley; and therefore, they could be no strangers to the difficulty which would attend the fabrication of new objections. Their surprize, however, soon ceased, when they perceived that the arguments contained in the pamphlet under consideration, were the very same that were made use of by every opponent, in the earlier part of the practice; with this difference, that in the present instance they are supported by cases and supposed facts; whereas, formerly, they could only be looked upon as mere conjectures. The author's address in obviating the objections which were made against his predecessors, is too striking to pass unobserved. He knows there are cases upon record, which have resisted the variolous infection thirty, forty, and even fifty years subsequent to vaccination, and that these have baffled every opposition; he therefore very prudently pretends to believe, that the casual cow-pox possesses the preventive powers; and carries his faith so far as to advise the Vaccine Institution, " to petition Parliament to lend them once more their fostering hand, (I suppose to make an establishment for keeping cows and greasy horses) that the profession might be better enabled to procure matter immediately from the cow. " This," in his opinion, " would be soliciting them to exert a power truly consistent with their constitutional prerogative; and suited to the temperate wisdom of their deliberations as a legislative body." P. 70 and 71.

Whether it was an anxious wish to discover error, and a sincere love of truth, which induced our author to lay his work

work before the public, is a question not easily to be determined. If we were allowed to judge from the facts before us, we should be apt to conclude, that he had been actuated by passions far more powerful. For, to see the Discoverer of Vaccine Inoculation neglect him so far, as to take no notice of his letter,* could not but excite some resentment in a man, who was accustomed to be looked up to by medical practitioners; and when the Rev. Mr. Griffin, a gentleman not belonging to the profession, from motives of the purest philanthropy, encroached upon a practice so glaringly neglected by the medical men in his neighbourhood, as to draw upon them the censure that they were "a century behind the whole world in improvement," p. 6, it is very natural to expect, that one of them should be provoked to stand up for the honour of the Faculty, to clear them from the imputation under which they laboured, or at least to give some reasons to the world, feeble as they are, in extenuation of their neglect. The author, however, is far from acknowledging these to have been his motives; and rather endeavours to conceal them, by making strong professions of candour and liberality. "It is far from his wish to spread vain alarms," (p. 62); yet he has taken great care that his advertisements should make a conspicuous figure in the public papers; and that his pamphlet might be better and more generally known, we are publicly informed,† that he has been very liberal in making a gratuitous distribution of it. Keeping Dr. Jenner's words in his remembrance, he has conducted his experiments, "with that calmness and moderation, which should ever accompany a philosophic research;" accordingly, he never has lost the opportunity of exposing his vaccinated children to the variolous contagion; and when this did not succeed, he made them sleep in the same cradle with others who had the small-pox; took the cap from the head of the one, and clapped it upon the head of the other; and the same filthy cap was made use of through the whole of the contagious period of the disease. (p. 31). In no less than three instances, he has carried his calmness and moderation so far as to persuade parents, who had already witnessed the beneficial effects of the vaccine inoculation in their own family, to submit their other children to the inoculation of the small-pox, for no other purpose but

* See p. 44. and 45.

† Med. and Phys. Journal, No. 65, 66.

but to give him an opportunity of infecting those that were vaccinated, if possible. P. 26, 30, and 66.

The calmness and moderation of his reasoning is equally conspicuous. In the very beginning of his introduction he tells us, that "the vaccine inoculation has been spread throughout almost every part of the civilized world, with a rapidity which stands without example in the history of science;" and no wonder, for a discovery which was "to render the human constitution unsusceptible of a disease so highly contagious, and universally fatal to mankind, as the small-pox, could not fail to attract immediate attention;" but, after all, this "was an event more to be wished for, than expected." And then, to heighten the surprize, and to raise suspicions, in the minds of the uninstructed, he informs us, that all "these important consequences are to succeed a small puncture with a lancet, without producing any material indisposition, and totally free from any risque of danger;" but this, in our author's opinion, "carries with it an air of mystery;" and he is indeed very much suprized, "that it should have been so readily adopted, and carried to such an extent into practice." P. 1 and 2.

It does not seem to be unknown to Mr. Goldson, "that the success of vaccination is often defeated, either by the matter having been taken from a spurious pustule, or by its having suffered a decomposition from a variety of causes; in consequence of which, in the early stages of its introduction, blunders had been committed by many practioners, who, to use Dr. Jenner's words, took up the lancet without ever having seen the true vaccine pustule. P. 4. Yet, notwithstanding this, whenever he notices these blunders, he takes care to introduce them in such a manner, as to imply some doubts upon the subject. Thus, after informing us, (p. 3) "that many of the vaccinated children were soon afterwards submitted to the influence of the variolous infection without effect," he immediately makes the following assertion. "Several instances, however, of its inefficacy were observed at this period, but all of them," he adds in a very artful manner, "were pronounced to arise from some cause or other, not at all inimical to the regular practice, pursued by the discoverer, and his own immediate friends." This regular practice was not a secret, as is here insinuated; it was publicly known; and every one who did not deem it too great a trouble, might have made himself acquainted with it. If our author had paid a little more attention to it, perhaps he would not have

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stood in need of asking for further investigation." But I must confess myself at a loss to guess whom he alludes to, when he speaks of the immediate friends of the Discoverer. Surely he cannot call those who first began to practice vaccine inoculation, Dr. Jenner's immediate friends; and therefore, the whole of the preceding passage can be viewed in no other light but that of an insinuation, that the promoters of the vaccine inoculation had formed a plot to enforce the practice upon the public against all reason; or, to use his own words, "to deem every failure spurious, and to conceal it," (p. 62), and thus to class them with their antagonists, who have raised plots, and used means, fair or foul, to obtain their object.

Speaking of the medical practitioners in his neighbourhood, Mr. Goldson is very particular in telling us, that, "they could not remain ignorant of the many instances of failure, which occurred in its infancy Neither could they help remarking, what must have been obvious to every attentive observer, the apparent instability of the practice. With every fresh instance of a spurious case, they heard of new instructions, and cautions in respect to taking the matter. These instructions deviated occasionally, from the thirteenth down to the seventh or eighth day; and yet they were told, that on this point depended the whole success of the operation." P. 6 and 7.

Wonderful instructions indeed! But I must confess, I never heard of them before. These, I suppose, made their first appearance in the world, when I was abroad, where it could not be expected that every paltry publication which appeared on that subject in England, should come to my hands. But I have seen many similar instructions in Germany. For no sooner did the practice of vaccine inoculation begin to be adopted, than the barbers, who, it is well known, practice surgery in that country, to the great nuisance of society, took up their lancets, and inoculated what they called the cow-pox. The consequences might easily have been foreseen. Several of the children inoculated by them, caught the small-pox afterwards. The poor barbers, perceiving that their medical reputation was at a stake, endeavoured to get out of the scrape in the best manner they could. Some of them were bold enough to insist upon it, that the children had the cow-pox in the most satisfactory manner; precisely as had been described by Dr. Jenner, and others of their own countrymen who had written upon the subject. Then the public was annoyed with their justifications; which, generally, consisted of

of the recital of some of the most prominent symptoms of vaccination, which they copied almost verbatim from the authors who had written on the subject; and I can assure Mr. Goldson, that this was executed in so masterly a manner, as to bid defiance to any which have appeared in this country, upon similar topics. Others again, more conscientious than the rest, contrived to extricate themselves, by making confessions of their little experience; and by pointing out what they fancied, had led them into error. This, in general, was followed by a code of instructions, which varied, perhaps, as much as those that appeared on this side of the water, but which no sensible person paid any attention to; and, I believe, as little regard was paid in England to the instructions Mr. Goldson alludes to. It reflects no great credit on him to bring them forward, either in support of his argument, or as an excuse for the errors he has committed; principally, as at the same time when vaccination was first practised in his neighbourhood, there were instructions to be found in England, which, to the present time, have not varied at all. To convince our author of this, I shall here copy an extract of a letter I received from Dr. Jenner, dated January 23, 1801, not long after the period, when Mr. Goldson had so much cause to complain about "the apparent instability of the practice;" and I earnestly beg of him to compare the instructions it contains, with those which were in the hands of every one, at the time he wrote his pamphlet.

"I shall take the liberty of laying before you certain rules, which, in my opinion, should guide the vaccine inoculator, and I will venture to add, that were we never to deviate, any occurrence out of the ordinary course of the disease would be extremely rare. The third will perhaps explain the principle upon which your matter parted with its original properties.

"First, We must observe, that the pustule go slowly and regularly through its progressive stages of inflammation, vesication, and scabbing; and that the vesication be accompanied with its efflorescence.

"Secondly, That the vaccine fluid be taken from the pustule for the purpose of inoculation at an early period of its formation.

"Thirdly, If, from any peculiarity in the constitution of the patient, or from the state of the virus, a variety should appear in the character of the pustule, that pustule should not be used for further inoculation.

"The necessity of attending to the first of these rules

is

is obvious: were it neglected, even an exanthematous blush, excited on the arm by the insertion of the virus, might be deemed a sufficient security; and a mere vesicle, quickly forming, and as quickly subsiding, might be considered as the real vaccine pustule, in which we are to place our confidence.

"With regard to the second injunction, I shall observe, that the activity of the virus begins to diminish upon the formation of the efflorescence; therefore, if circumstances will admit, it should not be taken after the eighth day; but the best guide, I think, would be to stop upon the progress of the efflorescence; I do not presume to say, that at this period the virus is effete; certainly it is not; but that it frequently occasions disappointments, my early trials, and those of others, on whose accuracy I can place the greatest confidence, fully evince.

"As a commentary on the third rule, I shall observe, that when we take the vaccine fluid from a pustule, which, in its progress, has materially deviated from its common character, we are very apt to produce a pustule, maintaining that deviation. The texture of the vaccine virus is certainly very delicate, and easily thrown into derangement; so that causes, apparently trifling, are liable to decompose it. I shall mention one to you, by way of illustration. In the early part of my practice, I used frequently to dry the virus *by the fire*, upon threads, glasses, and lancets, but with much caution respecting the degree of heat; yet experience has taught me, that even this procedure frequently occasioned a variation in the progress of the pustule produced by it, as it was apt to commence with a soft creeping scab; which, in some instances, produced at its edges, as it advanced, the perfect vaccine fluid in a ring around it, which fixed a boundary to the extension of the scab. The efflorescence followed, and the constitution was found secure from the small-pox. But, in other instances, the process ended more abruptly, and then of course, the susceptibility of the vaccine virus remained, which was proved by subsequent inoculation.

"I do not find that the vaccine virus undergoes any change, in passing successively from one patient to another for a great space of time. I can answer for its possessing the same properties at the expiration of twenty months, as when it was taken from the cow."

Having given a few specimens of Mr. Goldson's calmness and moderation, I shall next take into consideration, his qualifications as a vaccine inoculator. In endeavour-

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ing to exculpate the medical profession in his neighbourhood from the censure they had incurred, he informs us, that the practice was adopted in the autumn of 1800. All this may be perfectly correct; but he does not inform us, that since this time vaccine inoculation has been practiced there so generally, as in other parts of the world. Having lately visited the place of Mr. Goldson's residence, I have had an opportunity of inquiring into the fact; and I find, that, comparatively speaking, vaccination is even now very little practiced there; and when you talk about the cow-pox, you will hear every where the old story, that children will have the small-pox afterwards. Report says, that at the time Mr. Goldson published his pamphlet, which was about four years after the first introduction of vaccination into Portsmouth, Portsea, and Gosport, he had only vaccinated eighty children. Being at the head of his profession, perhaps no other practitioner had inoculated so many. One of the most respectable physicians had inoculated only two; and we may form a just idea of the high estimation in which vaccine inoculation is held by the medical profession in that part of the country, from " the candid and liberal approbation which they unanimously expressed," when the report of Mr. Goldson's cases, with the observations annexed, were read before the quarterly meeting of the Medical Society of Portsmouth, Portsea, and Gosport. When, therefore, he tells us that the cow-pox was known to the medical men in those towns soon after its promulgation, but little practiced, he has been very unsuccessful in clearing them from the charges under which they labour. However, as they are said to have attended to it with a desire to make themselves masters of the subject," (p. 6) it will be worth while to enquire, with what success these labours have been crowned?

P. 9, he says, that " in no instance, he himself has seen any approach to a spurious disease." I believe there are few vaccine inoculators in Great Britain who can say the same. We were indeed very much surprized when we first read that passage; but our surprize was greatly increased when we were afterwards informed by unquestionable authority, that the practitioners in this neighbourhood never take the matter till what they call the ninth day. But as they do not count the day on which the inoculation is performed, what they style the ninth, is in fact the tenth day. Besides, instead of performing their inoculations from arm to arm, they still continue to dry their matter upon lancets; and then use them as occasion requires.

quires. Therefore, instead of never having seen a spurious cow-pox, it may be questioned, whether Mr. Goldson has ever been so fortunate as to see the genuine cow-pox? P. 55. Speaking of the casual cow-pox, he maintains that the bluish cast is the characteristic of the pustule; that in the first vaccination it retains this colour; but that it is not to be distinguished after it has passed once through the human body. In support of this assertion, he quotes Dr. Woodville's authority; and then adds, that it is "a circumstance of some material import; but which has not been sufficiently attended to."

I must beg to inform our author, that he labours under a very great mistake. Medical men have paid particular attention to this point; and their experience has proved, that the bluish cast is not peculiar to the casual pustule; but, that it is frequently observed in the inoculated cow-pox. I have seen it, not only in the early part of my practice, but likewise, after I had been using matter from the same stock for upwards of three years. Dr. Woodville made this assertion in the beginning of his practice; and I am convinced, that long before this time, he must have frequently witnessed the bluish cast in the inoculated cow-pox.

P. 56. When speaking of the similarity of the vaccine to the variolous pustule, he asserts, that the vaccine pustule "does not possess the permanent power of resisting *its own reiterated action.*" I believe some cases are related by Dr. Jenner, of persons being infected a second time with the Cow-pox. But when we can produce a local infection of the small-pox, in a person who has already undergone that disease; surely it cannot be made an objection to the practice, that the same should happen in the cow-pox. But laying this aside, as Mr. Goldson appears to have a turn for making experiment; I would advise him, to try to infect children a second time with the cow-pox; and he will find, that it is not so easy a matter, and that the cow-pox possesses in a much higher degree than the small-pox, "the permanent power of resisting its own reiterated action." I have made the experiment in several instances, and never have been able to produce the disease a second time but once. I have tried it upon myself; for although I have had the small-pox, I once produced the true vaccine pustule upon my hand. Since that time I have reinoculated myself upwards of a hundred times with cow-pock matter; but have been unable to infect myself again.

P. 56. He talks very learnedly upon the origin of the cow-pox; yet, it is quite unknown to him, that Dr. Jenner, or any one else, since his publication, has ever prosecuted the idea. To the names and labours, therefore, of Mr. Tanner, Drs. Loy, Sacco, and La Font, he is an utter stranger. Had Mr. Goldson made himself acquainted with the experiments of these gentlemen, he would have known, that it appears very doubtful still, whether it is requisite that the matter of the grease should pass through the nipple of the cow, to produce the desired effect in the human body.* With regard to the experiments he proposes, of inserting the morbid matter from the horse's heel into the nipple of the milch mare, I dare venture to foretell, that it would produce nothing at all; since the experiments instituted by Professor Vibourg, in the Royal Danish Veterinary School at Copenhagen, have clearly proved that the grease is not infectious in the horse. He took matter of the grease, and endeavoured to infect the heels of sound horses; he tried various means; such as inoculation, rubbing the heels with the matter, after having shaved off the hair; blistering the parts, and then applying compresses of lint, which had been previously soaked in the matter, &c.; but all his trials proved unsuccessful, no infection took place.† We may therefore safely conclude, that Mr. Goldson's proposed experiments would be attended with similar results.

As a proof how well Mr. Goldson is instructed in every particular, respecting vaccination in his own country, he confounds the Royal Jennerian Society with the Vaccine Pock Institution; and, in his answer to Dr. Walker, in the Medical and Physical Journal, he calls the Doctor the principal vaccinator under the directors of an institution to whom the pamphlet was respectfully addressed.

From the above specimens of our author's erudition in vaccine inoculation, we may form our judgment, how far he was qualified to bring before the public the work under consideration.

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* Professor Wollstein of the Veterinary School at Vienna, has informed me, that what the French call *javarre*, is not the *grease*; the latter is an erysipelatous inflammation of the horse's heel; whereas, the former is a *caries* of the bones, belonging to those parts.—It is therefore easily accounted for why the experiments with matter from the javarre has proved unsuccessful in France.

† See Pfaff & Scheele Nordisches Archiv fur Natur und Arzeneiwissennschaft. B 1. St. 3. Seite 569, 570.

But we are now come to the most important part of the subject, viz. the consideration of the author's proofs, in support of his argument, that vaccine inoculation only proves a temporary preventive against the small-pox. These are illustrated by eight cases; in which the small-pox is said to have happened subsequent to vaccination. Of these, however, four only can be considered to have occurred in his own practice; for Case I. was vaccinated by Mr. Paytherus; Case IV. and V. by Mr. Weymouth; and Case VI. by Mr. Rickman.

The matter used for these inoculations was sent to Mr. Rickman, Surgeon of the division of Marines, by the sick and wounded board; and he made use of it upon five marines. From these he took matter for his own patients; and likewise supplied Mr. Goldson and other Practitioners in the neighbourhood. Whether this matter has not been the source of all the mischief still remains doubtful. Mr. Goldson contends, "that it is not to be presumed that a public board, directing experiments to be made upon the subjects in an Infirmary under their controul, would be so inattentive, as to send such as was improper for that purpose," p. 46. There was not the least occasion for laying so much stress upon this; no body will suspect, that they would send spurious matter intentionally. However it is a fact, I believe, not unknown, that about that period, viz, in autumn 1800, the matter which was in circulation in London, was of a very suspicious nature; and that it was even propagated by some eminent practitioners of the metropolis. And if we take Mr. Rickman's own testimony for granted, perhaps little doubt will remain upon the subject; for in conducting his experiments he "soon found, that the matter ran rapidly into a purulent state after the eighth day; of which he advised the board." p. 49. The experienced vaccinator knows well, how rarely this is the case in the true vaccine vesicle. From my own practice and experience, I am induced to believe, that the true vaccine vesicle never goes into suppuration, except when locally irritated. If you inoculate a very young child, that has not the sense of scratching itself, and care is taken by the nurse not to injure the arm, the vesicle will never pass into suppuration. The matter contained in it will, as it were, congeal; and form a crust similar in form to the original vesicle. In the small-pox the case is different; the fluid contained in the vesicle changes from a limpid into a purulent matter. This is the greatest dif-

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ference which I have been able to discover betwixt the vesicles of the two diseases.

To this testimony I can add, that it is confidently asserted, that the matter which Mr. Rickman has given to several practitioners in Portsmouth and Gosport, has proved ineffectual; as has been demonstrated by subsequent inoculations. For the sake of humanity, I think it a duty incumbent on the gentlemen to whom this has happened, to come publicly forward, and testify the fact.

On a question of such importance as that under consideration, and which, in Mr. Goldson's opinion, "ought as soon as possible to be determined," no circumstance should have been omitted, that could in the least have elucidated the subject. A faithful Narrative or Journal ought to have been given of the Cases, in which the matter sent by the Board was first tried; then some judgment might have been formed, whether the matter had produced the desired effect or not. The same ought to have been observed, in every subsequent case, in which the small-pox was said to have taken place after the cow-pox. To these particulars, however, the Author has paid but little attention.

Not a word is said of the five marines, who were first inoculated with the matter. Two subjects, who were immediately inoculated from these five, were afterwards affected with an eruptive disease, which was pronounced to be the small-pox. Mr. Goldson has been pleased to give the Cases relative to these two subjects a place in the latter end of his pamphlet; although, in my opinion, an accurate delineation of the symptoms which occurred, both when they were supposed to labour under the cow-pox, and afterwards, under the small-pox, would have greatly tended to the elucidation of the subject; and deserved to have been related the first of all. But Mr. Goldson says, he lays no material stress upon these cases, nor wishes to draw any inference from them. (p. 40.) For my own part I must declare, that I am unable to draw any; for the proofs here offered, that the subjects had the cow-pox, are equally unsatisfactory as those of their having had the small-pox. As I consider one case, as it now stands, unconnected with the other cases related by Mr. Goldson, I shall offer a few remarks upon it here.

From one of the five marines, Mr. Rickman inoculated *Clarke* (Case 6th.) on Nov. 4, 1800. Whether this man had the cow-pock or not, it is difficult to determine; for although nothing had been said of the appearance of the

cow-

pox in the five marines, we are told that "there was no apparent reason to suppose that he had not received every benefit from it, as he (Mr. Rickman) noticed no difference in the appearance of the arm, or the symptoms, from any of the former."

On the 18th of November, he (Mr. Rickman) vaccinated a child, Sarah Smith; as one of the punctures was rubbed off very early, he did not think it proper to note this, as a characteristic case." (p. 41.) Mr. Rickman had no right to draw this conclusion; for as he specifies *one* of the punctures, it follows he must have made *more*; those, therefore, that were not rubbed off, would have proved a sufficient preventive, had the matter been good.

This child, however, caught an eruptive disease, which was deemed the small-pox. But Mr. Goldson himself expresses some doubts whether it was the small-pox; for, he "was struck with a peculiarity in their appearance, which was extremely evident on comparing them with a child in the house adjoining. In each the number was nearly the same; yet they were more prominent and forward in the one than the other." (p. 42.) Nothing is said of the child's constitutional symptoms, nor how long this eruption continued. With matter taken from this child, Clarke was inoculated on March 24, 1802. He sickened on April 1, and an eruption took place; but whether this was the small-pox or not, is equally obscure as in the former case. Mr. Goldson saw him as early as "the third or fourth day at farthest," and confesses that the pustules were "more maturated for the time than might be expected. They were likewise remarkably conical, an observation he had made in the child from whom the matter was taken. The arm had at the same time, a very different appearance from the common small-pox arm; as there was an unusual livid appearance in the maturation of the puncture." (p. 43) "The peculiar appearance of the pustules, connected with what he considered an unusual aspect in the arm, induced him to write to Dr. Jenner on the subject, conveying the suspicions he entertained at that time, of its being an anomalous case of varicella." (p. 44.)

It is barely mentioned that Clarke sickened; but we are not told how long this sickness or the pustules continued. The only additional evidence which is given of its being the small-pox, is, that matter was taken from him, which produced evident proofs in several instances. These several instances are not related; perhaps it produced such a small-pox, that every one who saw it would be surprized

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with its peculiar appearance, accompanied with an unusual aspect in the arm; the eruptions not maturating, and disappearing in six or seven days, as we shall find to have happened in most cases, which Mr. Goldson considered to be the small-pox.

Upon the whole then, from the inaccurate and careless manner in which this case has been described, no inference whatsoever can be drawn.

In the same light I consider Case IV. and V. which occurred to one Mr. Weymouth, a gentleman who makes a very conspicuous figure in the pamphlet, as an antagonist to vaccine inoculation. No case of failure is quoted by our author; but he calls upon the authority of his friend, Mr. Weymouth, who is always ready to second him.

In Case IV. a child was vaccinated by this gentleman, on March 18, 1801; and the easiest and best proof he gives of the child having had the cow-pox, is, "that the arm inflamed, and put on every appearance described by Dr. Jenner." (p. 36.) But notwithstanding this, when the child was inoculated, thirteen months after, with the small-pox, it caught the disease, became feverish, and had several pustules. Unfortunately, however, one pustule only maturated; but from this one he tinged two lancets, and inoculated two children, both of whom had the small-pox in the most satisfactory manner. I have not the least doubt of it; the pamphlet affords us many opportunities of judging what this gentleman means, when he speaks of having the small-pox in the most satisfactory manner.

Case V. is nothing more or less than a local affection of the small-pox after the cow-pox. There was no eruption whatsoever, but the child had a smart fever. It is hardly worth while to dwell upon this case. The fever was evidently produced by the local irritation, and the same would have happened had the child had the small-pox. Instances of similar local infections after the small-pox are upon record without number; and to bring such a case forward, as an instance of small-pox subsequent to vaccination, betrays no great information, either on the part of our author or of Mr. Weymouth. Mr. Goldson pretends not to lay much stress upon them, (p. 35), why then were they published? or, how can he expect that any one else will lay much stress upon them?

As no conclusions can be drawn from the above cases, I shall take no further notice of them.

With regard to the other cases, which we are now going to consider, the same want of accuracy is conspicuous throughout

throughout the whole. We have every reason to call in question the purity of the matter which was used; the proofs that the children had the cow-pox, are indeed too vague to be satisfactory; and whatever Mr. Goldson's erudition may be, on other subjects, his knowledge of vaccination amounts to little more than nothing; so that we cannot deem his authority as satisfactory. We must therefore leave it undecided, whether the children have had the cow-pox or not; but as Mr. Goldson has given us ample proofs, that the cases which he considered to be the small-pox, were diseases of a different description, we shall, in the subsequent remarks, direct our chief attention to that part of his pamphlet.

Case 1. is of a child inoculated with the small-pox, three years and three months subsequently to vaccination. The effects of this latter inoculation were as follows: the arms inflamed, suppurated, and an areola was formed round the parts. On the 26th, "The suppuration was manifestly increased, and the areola was become extremely florid and radiated; bearing evident marks of absorption. The child was pale, not warmer than usual, but its pulse were quicker than *they* should have been, or than *they* ever had been before." These febrile symptoms prove nothing, as they may proceed from local irritation.

When Mr. Goldson asked the parents, "whether the child had been ill during the night, or whether they had observed any kind of appearance on the body. They instantly shewed him six or seven eruptions." It appears very strange to me, that Mr. Goldson should have asked this question; for he informs us that three of these pustules were on the child's forehead and temple, and one on his nose. Had these been the true small-pox pustules, I believe they would have been visible enough without asking.

In the evening of the same day, Mr. Goldson was sent for again; and he found the child in "a high degree of fever, his countenance much flushed, and there was a considerable efflorescence on both arms," which Mr. Goldson considered to be "the rash, which is observed in the inoculated small-pox. Two or three eruptions, of the same kind as those seen in the morning, were readily distinguished through the efflorescence."

It is nothing very astonishing, that a fever should take place in consequence of a local irritation; and this might have been the case here. But there cannot be the least doubt, that the fever in this case was greatly aggravated

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by the anxiety of the parents; for Mr. Goldson informs us, that the friends began to be alarmed, (p. 13); and that he "perceived the anxiety of the parents led them to watch him with an inquisitive eye." (p. 14) Accordingly it so happened, that on the evening when Mr. Goldson was sent for in haste, the child had been seized with a cold shivering, or, as the author expresses it, "with a violent rigor," which frightened the parents so much, that they pampered the child with hot wines and flannel. We need not wonder, therefore, that Mr. Goldson found him in the state above described, with fever, flushed countenance, &c. With regard to the account of the servants, that he had been delirious the preceding night, no dependance whatsoever can be laid upon it. "Thursday 29, Instead of suppurating, the eruptions were covered with a warty scurf," which is three days after their first appearance, and "this encrustation was rubbed off on the following evening.

Mr. Goldson informs us, that when the history of this case reached London, the opinions of Messrs. Ring, Paytherus, Dr. Willan, and the Medical Society in Bolt Court, differed from that of the medical gentlemen in his part of the country. They all agreed that the attempt to excite the small-pox had failed. "They had likewise no doubt, that the same train of symptoms may be excited in persons who have passed through the small-pox, either in the casual manner or by inoculation." (p. 17.)

Mr. Ring, in his letter to Mr. Grant, has entered more fully upon the subject; and given satisfactory proofs that the case in question was not the small-pox; however, it appears, that Mr. Goldson has shut his eyes and ears to conviction, and persists in his former opinion. He particularly notices an observation of Mr. Ring, which, he says, experience does not confirm; viz. that the sudden disappearance of the pustules "is a sufficient proof that it was not the small-pox, *which always continues a longer time.*" In answer to this, our author proceeds thus: "We well know, that in many instances the inoculated small-pox does not maturate, but retires in a few days; although the patient be perfectly secure. And, as I before observed, one of the gentlemen who saw Mr. Grant's child, remarked, that he had very lately inoculated one, where the appearance of eruption was not greater than in that instance." (p. 19.) I am exceedingly sorry I cannot subscribe to this opinion of Mr. Goldson and his friend. Mr. Ring's assertion is perfectly just; the true variolous erup-

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tion goes through a regular course, and always continues a longer time; and no dependance can be placed on an eruption which never suppurated, and only lasted three days. Perhaps, at some future period, we may hear a little more of the case Mr. Goldson's friend speaks of; and then the public will be entertained with a marvellous history of a second infection of the small-pox, in the same manner as we now are with our author's cases of small-pox subsequent to vaccination.

(P. 22.) Mr. Goldson "appeals to the candour of the profession, whether the cases of eruption, pimples, &c. arising from inoculation, in persons who have passed thro' the small-pox, were ever known to bear any kind of proportion to what has occurred in variolous inoculation after the cow-pox?"

This question is asked under the prepossession, that these pustules really were the consequence of inoculation. I am far from being of that opinion; neither can I subscribe to the idea, that the eruption in this case was a sympathetic affection of the skin. I look upon it to have been occasioned merely by accidental infection, from the child having scratched itself, as is daily observed to happen in the cow-pox; for Mr. Goldson informs us, (p. 12) that on Friday the 23d, the fourth day after inoculation, he "found the arm of the eldest had been rubbed in the night, and had discharged some lymph on the linen;" and that the inflammation was considerably increased. In short, the child had scratched its arm, and, with the infected nails, produced the few pimples in question. Again, (p. 23) "During the night of Sunday, the inflammation of the arm rapidly increased." This is another proof that some irritation had been applied to the pustule; for in the small-pox, as well as in the cow-pox, the inflammation proceeds gradually and slowly. During that same night the child was very restless; which by the servants was termed delirious. I am moreover inclined to adopt this opinion, on account of the very short duration of these pimples; and of their being so small that even Mr. Goldson, who was looking out for them, could not see them, till they were pointed out to him.

(P. 22) He further ventures "to appeal to the candour of the most zealous promoters of the cow-pox, whether this circumstance is not very rare, if it does ever happen, when inoculation takes place at an early period after vaccination?" Here I am rather at a loss to understand the author's meaning. If he means the small-pox, nothing

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but a direct negative can be given. If he alludes to the eruption; in the manner I have above explained it, it may happen in any case; but besides, such a transient eruption may be produced from a sympathetic affection of the skin, even in persons who have had the small-pox, and consequently it may happen in persons who have had the cow-pox. Or, if Mr. Goldson alludes to the inflammation of the arm, and the febrile symptoms, as I am inclined to think he does, from his subsequent remarks, I can answer him in the affirmative. For although, perhaps, no such cases may be found in Dr. Jenner's publication, they are to be met with in the works of others. Has Mr. Goldson forgotten, or has he never heard of the case of a child called Blondeau, at Paris; which happened a little while after vaccination was introduced in France, and which his predecessor, the famous Vaume, laid so much stress upon, as a case of small-pox subsequent to vaccination? I need not repeat it here, for Vaume has taken care that it should be public enough; but I can relate several which occurred in my own practice, and one in particular, which in Germany made as great a noise, as that of Blondeau in France. Among the first children I inoculated, were those of one Börner, a barber-surgeon in Altona. This gentleman, anxious to gain reputation, took matter secretly from his children, at a period too far advanced, and inoculated several others in his neighbourhood. A short time afterwards, some of these children caught the small-pox, and one of them died. The sensation this created, can easily be conceived. The antagonists to the practice were particularly active, as is the case in general; and, to make it appear of greater moment, it was reported that the matter was taken from children whom I inoculated. After I had enquired into all the particulars, I published them in the Altona Mercury; and exposed Mr. Börner's ignorance. This enraged the gentleman so much, that he immediately inoculated his own children with the small-pox; which was about five months after I had inoculated them with the cow-pox. Even at this early period after vaccination, a local infection took place; and one of the children had a slight attack of fever; but no eruption took place. Mr. Börner's subsequent conduct may easily be guessed: he publicly proclaimed that his children had the small-pox; and there were no Mess. Weymouths, or Seeds, or Hills wanting, to support his cause. Their loquacity, however, was soon silenced by better and abler judges. Since that period I have seen several other instances of local infection

tion a short time after vaccination. Indeed, most of my reinoculations were performed very early after my patients had the cow-pox. In the early part of my practice I was obliged to do it, for the satisfaction of the public; but latterly I have left it off entirely. The two last children I reinoculated was a few months after vaccination. I took them to a room where six children were confined with the confluent natural small-pox. I inoculated each child with three punctures on both arms; and left them upwards of an hour in the same apartment, to breathe the variolated atmosphere. In both children the punctures took effect; and six beautiful pustules were formed upon their arms. One child complained a little on the evening of the seventh day, and vomited. The parents were inclined to attribute this to the child's having eaten some unripe fruit that day; but whether it was owing to this cause, or to the irritation of the pustules, I cannot decide; for the child was perfectly well the next morning, and on the tenth day, the pustules in both dried up, without any farther consequence.

(P. 24) He says, "If the same had arisen from an accidental infection, no one would have ventured to doubt." Mr. Goldson is perfectly mistaken, for such cases have occurred to Dr. Woodville, and to Dr. Ballhorn and Mr. Stromeyer at Hanover; not three years after vaccination, but only a few days. The antagonists to vaccination proclaimed that it was the small-pox. Dr. Ballhorn and Mr. Stromeyer, however, cleared themselves from this imputation; but, being led astray by theory, or rather a preconceived idea, they looked upon it as a vaccine eruption. I shall soon have an opportunity of taking more particular notice of these cases.

Case II. III. and the two related in the postscript, are cases in which an eruptive disease, considered by Mr. Goldson as small-pox, occurred, in consequence of exposure to the variolous contagion, subsequent to vaccination.

Case II. is of a child four months old when vaccinated; and we are informed, that since that period she has not been prevented from going where the small-pox might have been. However, she withstood the variolous infection, till she was laid in the same cradle with a child labouring under the small-pox, three years and three months subsequent to vaccination.

Case III. is relative to the child, on whom the manœuvre of the nightcap was performed, but without success; it was, however, infected at school, three years after

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it had the cow-pox. The two cases in the postscript are said to have resisted the variolous contagion in the same manner for some time. When the children had the supposed small-pox, the child in Case II. had a fever from Thursday till Saturday noon; and on Sunday seven distinct eruptions appeared. Nothing is mentioned of the external character of the pustules; they only lasted five days, and never maturated.

In Case III. there were upwards of a hundred eruptions, several of which were pustular, and already far advanced towards maturation, on the fourth day of the eruption; the first day on which Mr. Goldson saw the child. They dried off as early as the seventh day. It is said, that previous to the eruption, the child was unwell from Wednesday till Saturday, and even that it had a considerable fever. However this fever cannot have been so very considerable, as the mother of the child was not in the least alarmed; and only considered it to arise from cold. The only thing she thought necessary for the child's-relief was to keep it in bed, and give it some diluting drink.

In the Case related, p. 66, the child was feverish from Wednesday till Friday; and the eruptions made their appearance from Friday till Sunday. "They were mostly small, but prominent; and all of them, about twenty in number, went off on the sixth or seventh day. None of them maturated, but some of them exuded a small portion of lymph; which incrusted on the apex, and gave them a warty aspect."

In the Case p. 68, the child was complaining and feverish from Monday till Friday; and from Wednesday till Saturday, eruptions, twenty-five in all, appeared. "The eruption on the pubis had a white, glassy appearance, as if it contained a fluid; but it never became perfectly pustular like other cases. The apices of most of them exuded a small quantity of lymph, which incrusted; and they gradually died away after the seventh day."

In support of his opinion, Mr. Goldson informs us, that several of the most respectable practitioners in his town, among which Messrs. Weymouth, Hill, and Seeds are not omitted, were witness to the above cases, and that they did not hesitate to pronounce them to be "the effect of variolous contagion."

This is all very well; and I shall not contradict these gentlemen. I myself am firmly convinced, that it was the effect of variolous contagion; but it is far from my opinion that they were cases of small-pox, as Mr. Goldson supposes;

supposes; and I firmly believe, that under similar circumstances, the same train of symptoms would have been produced in persons who had already undergone the small-pox. There is nothing very extraordinary in this; for I believe it is well proved, that although a person may have had the small-pox, the skin will retain the susceptibility of being infected, when again exposed to the variolous contagion, and a local eruption will take place, frequently attended with fever, and other symptoms of irritation. This eruption has obtained several denominations. The French call it, *petite verole volante*; the Germans, according to the variety of its external characters, have called it *wasser-pocken, wind-pocken, schaaf-pocken, swine-pocken, &c.** the English, in general, have called it the chicken-pox; and sometimes the spurious, or bastard small-pox. In Latin it has been styled varicella. But it signifies little by what name we call it; it is sufficient for us to state, that medical records abound with cases of spurious eruptions, produced by the variolous contagion; which, before the discovery of vaccine inoculation, were frequently mistaken for the small-pox, and looked upon as a second infection; and since that discovery have as frequently, either been considered from ignorance, or misrepresented from a spirit of opposition, as cases of small-pox subsequent to vaccination.

To obviate any rash decisions in future, it will not be amiss to relate a few instances.

Huxham informs us, that he has known several cases of variolous infection in persons who had the small-pox formerly, accompanied with a general eruption very similar to the small-pox, but not attended with fever. He observed this particularly in nurses, and other persons attending upon small-pox patients.

Hensler, formerly a practitioner in Altona, and at present a Professor of the University of Kiel, once a strenuous defender of the small-pox inoculation, at the time when this practice was first introduced into Germany, relates several cases of this description. He mentions, that a child had the small-pox at the same time with an elder sister; that four years afterwards she was infected again by a younger sister, who died of the small-pox. She was feverish for three days; when a general eruption broke out, consisting

* Water-pox, wind-pox, sheep-pox, and swine-pox.

consisting of pustules containing a limpid matter; but they only lasted five days.

Another similar case is that of a woman, who having had the small-pox when young, attended upon one of her children labouring under the confluent disease. She was seized with a violent fever, which lasted twenty-four hours; when six large pustules made their appearance, containing a thin purulent matter. They stood eight days; and did not dry up till a considerable time after.

The following interesting case, related by the same author, shews that the variolous contagion has the power of locally infecting the skin, even when it cannot exert its influence upon the constitution. A lady, who had one of those constitutions which, upon every occasion, had resisted the variolous contagion, and was therefore deemed unsusceptible of the disease, when nursing her child while labouring under the small-pox, was accustomed to make it lean against her cheek; in consequence of which, an eruption of twenty pustules appeared upon her cheek and breast. These pustules disappeared in four days.*

The same is corroborated by Hufeland, who says he has frequently observed, during an epidemic small pox, that when children, who never had the small-pox, slept with others labouring under that disease, instead of being infected with the real small-pox, they were only attacked with a spurious eruption. This eruption, he informs us, was attended with fever, and consisted of pustules containing purulent matter; but as they did not go through their regular course, he did not hesitate to pronounce them spurious; and the event proved he had not been mistaken, for several of these children afterwards caught the real small-pox, and some even during the same epidemic.†

This spurious eruption, proceeding from variolous infection, has been more frequently mistaken for the small-pox than we are aware of. Thus, there are several cases of eruption subsequent to vaccination, to be found in Dr. Woodville's Report, which have been erroneously taken for the small-pox from previous infection; when, in fact, they are nothing more than eruptions of the same nature as

* Hensler Uber die Einempfung der Kenderblatter, 2ter Th. s. 212.

† Bemerkungen Uber die naturlichen und geimpften Blatten von Dr. C. W. Hufeland, 1793, p. 52.

as those above related. The following are the cases I allude to.*

Richard Payne, (Case IV.) tenth day. The pustule was surrounded with a dark inflammatory circle. Fifteenth day, five pustules made their appearance.

William Mundy, (Case XV.) thirteenth day. The pustule was surrounded with an extensive efflorescence in the form of a circle. About the fourteenth day, there appeared several pustules upon his neck and back; they disappeared however in two or three days, without suppuration.

Hannah Hull and Sarah Hull, (Cases XXXI. and XXXII.) In these two sisters, the disease terminated far more favorably than in their brother William Hull; for in both cases, the pustule was surrounded with an efflorescence on the eleventh day; and the number of pustules that appeared in both, was not at all to be compared with those which appeared in their brother; the symptoms which accompanied the eruption in them were likewise of much shorter duration than in their brother.

Maria Murrell, (Case XXXIX.) tenth day. The pustule was surrounded with a diffused efflorescence. Twelfth day, about twenty pustules appeared. Fourteenth day, the pustules appear to dry up.

Richard Colloway, (Case XLIV.) twelfth day. An extensive shining redness surrounded the pustule. At the same time some pustules appeared; their number, however, did not exceed twenty.

Peter Peters, (Case LXXXI.) The efflorescence appeared on the eleventh day; twenty-four pustules appeared, which were all very small.

Sarah Hat, (Case LXXXVI.) eleventh day. The pustule was surrounded with efflorescence. The number of pustules which appeared was about forty.†

The efflorescence which surrounded the pustules in all these cases evidently prove, that no previous infection had taken place; and that the cow-pox had exerted all its influence upon the system. With regard to the subsequent eruptions, it evidently appears from the shortness of their duration,

* Not having a copy of the English original by me, I am obliged to content myself with translating the following extracts from notes taken by me some years ago from a German copy of Dr. Woodville's Reports. It cannot, therefore, be expected, that I shall hit precisely on the same words which Dr. Woodville has made use of.

† Reports of a Series of Inoculations, &c. by William Woodville, M. D. London, 1799.

duration, their smallness in size and number, that it was not the small-pox, although there cannot be the least doubt that they proceeded from exposure to the variolous contagion.

In the same light I look upon the eruption mentioned by Dr. Ballhorn and Mr. Stromeyer, which these gentlemen mistook for a subsequent suppurative vaccine eruption *(eruption vaccine subsequente suppurative)*; for in the cases in which it appeared, there were children in the neighbourhood, and even in the same house, labouring under the small-pox. An antagonist to vaccine inoculation, at Hanover, published in Hufeland's Practical Journal, vol. x. p. 186, one of those cases as an instance of small-pox subsequent to vaccination; and Mr. Ring considers them as cases of small-pox from previous infection.* In justice however to Dr. Ballhorn and Mr. Stromeyer, whatsoever may have been their error, in supposing it to be a suppurative vaccine eruption, I think they have clearly proved, that it was not the small-pox; for they inform us, that when the children had the cow-pox, the pustules on the arms were surrounded by an efflorescence; which could not have taken place had they been previously infected with the small-pox. With regard to the eruption, it resembled the chicken-pox, and was very different from the small-pox, for, "1. The pustules on this eruption were not so broad as in the small-pox. 2. The matter contained in them was more lymphatic than purulent. 3. The number was smaller than is generally the case in small-pox. 4. They had no depression in their apex, as is the case in the small-pox before they suppurate. 5. The scabs, which remained for some time after the pustules dried up, were smaller, thinner, and had a yellow colour; whereas the scabs in the small-pox are of a brownish colour. 6. Some days after they dried up, which generally happened about the sixth or seventh day, hard lumps appeared on the spots which had been covered by the pustules: 7. Which lumps at last went off without leaving the smallest mark behind; and nothing remained but brownish spots, which disappeared after some time."†

It is rather surprizing that Dr. Ballhorn and Mr. Stromeyer should have mistaken the nature of this eruption; for I have no where met with any description, where the distinctions

† Traite de l'Inoculation Vaccine, &c. par M. Ballhorn, M.D. Medecin de la Cour, & Mr. Stromeyer, Chirurgien de la Cour a Hanovre, 1801.

* See Treatise on the Cow-pox, &c. by J. Ring, Part II. p. 764 & 765.

distinctions between the chicken-pox and the small-pox are so well marked.

That the cases related by Mr. Goldson are perfectly of the same nature, will appear more evident from the following considerations.

I. This eruption was of a much shorter duration than is observed in the true small-pox. Case II. terminated its course in five days; and the remaining cases in seven days. Thus, about the period that this eruption disappeared, the real small-pox would hardly have begun to maturate.

II. None of them ever maturated, Case III. excepted; but in this case the eruption was too forward; for Mr. Goldson informs us, that as early as the fourth day, several were pustular, and well advanced towards maturation: indeed, they were so far advanced, that in three days after, the whole of them had disappeared. But even maturation would be no proof of its having been the small-pox, for in several of the cases of spurious eruption above related, the pustules contained purulent matter.

III. As these cases never maturated, they never could have passed through the regular stages, so well marked in the small-pox even in its mildest form. About the third or fourth day of the fever, eruptions make their appearance; first, in the form of small red spots, hardly elevated. These gradually increase in size; and after two or three days more, form a small vesicle, which is surrounded by a circular inflamed margin, and contains a clear limpid fluid. For the three or four succeeding days the pustules become larger, more elevated, and acquire their proper figure and size. At the end of this period, the clear limpid fluid contained in the vesicle, is changed into a purulent matter. After a few days more the pustules break, and discharge their matter; which is formed into a crust upon their surface; and lastly, after some time, these crusts fall off, and leave reddish brown spots on the skin below. Had any of Mr. Goldson's cases gone through such a regular course as this, I believe he would have done so much justice to his own cause, as not to have omitted that circumstance.

IV. Neither in Case II. or III. is any thing said, with regard to the external characters of the pustules; but in the cases related in the postscript, Mr. Goldson touches upon this point; and gives us evident proofs, that they were not the small-pox. The eruptions were small, prominent, and had a whitish glassy appearance, as if they contained a fluid; they exuded a small quantity of lymph,

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which encrusted on the apex, and gave them a warty appearance. If at the same time we take into consideration, that they never maturated, and only stood seven days; we can no longer doubt but they were cases of genuine varicella.

Perhaps it will be urged, that a fever of three or more days duration occurred in these cases. True, but this does not prove that it was the small-pox. The fever here, was produced by the general irritation; and happens frequently in these spurious eruptions, as we have seen in the cases related by Hensler. Hufeland says, he has seen such cases attended with fever, and a violent delirium; and adds, that even a secondary fever proves nothing; for that it frequently is wanting in the true small-pox, and, on the contrary, is often observed in the spurious, in consequence of irritation.*

The greatest objection, however, made against us will be, that Mr. Goldson took matter from Case III. about the end of the fifth day; and charged four lancets, with which four children were inoculated.

We shall therefore pay particular attention to the result of these inoculations.

Mr. Goldson's own patient was a delicate child, about six months old. It had considerable fever and rash; which was preceded by two or three convulsions; when he could not discover more than eight or ten eruptions, four of which maturated, and all went off on the seventh day.

Of the children inoculated by Messrs. Weymouth and Cooper, one had fifty, the other more than a hundred pustules; these likewise went off in seven days.

The subject inoculated by Mr. Seeds, was a strong and plethoric child at the breast; it had considerable fever, with extensive rash, and more than a thousand pustules; most of which did not turn till the ninth or tenth day.

That morbid matter, whatever may be its nature, when introduced into the human frame, should produce a series of morbid symptoms, is natural to expect. When, therefore, such matter was introduced into the body of a delicate child, only six months old, we need not be surprized at its having fever and convulsions.

With regard to the children inoculated by Messrs. Weymouth and Cooper, no mention is made that they had any fever. If they had any, Mr. Goldson would have mentioned

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* Hufeland Uber die Blattern, p. 53.

mentioned it; for he is very particular in taking notice of this symptom in his own case, and in that of Mr. Seeds. We therefore must conclude, that these were cases of small-pox, similar to those that once raged in France, in the time of Ettmuller, who very gravely tells us, that the small-pox in France is not accompanied with fever.

The child inoculated by Mr. Seeds had more than a thousand pustules. If these pustules were of the common size of small-pox, this child, who was only eight months old, must have been covered from top to toe; so that I cannot conceive how it was possible for Mr. Goldson to distinguish the extensive rash he talks of. However, in such violent cases of small-pox, there are in general other symptoms attending it, which are not mentioned here; such as, pain at the pit of the stomach upon pressure, swelling of the face, and afterwards of the hands and feet, secondary fever, discharge of saliva, hoarseness, difficulty of swallowing, &c. But we need not wonder at all this; the effect these inoculations produced was as much as could well be expected: the matter was taken from a case of varicella, which terminated its course in seven days, and produced a disease which likewise terminated in seven days, in three cases out of four. That the eruption in the fourth case was protracted two days longer, is only an accidental circumstance, and easily accounted for, the child being strong and plethoric. But independent of this, the number of pustules, and their duration, by no means prove that it was the small-pox. I have frequently witnessed cases of varicella, where the pustules were as numerous, lasted a longer time, and left marks behind like the small-pox. Lest my authority should be deemed insufficient, I shall quote that of an abler judge. Mr. Ring, in his Treatise on the Cow-pox, p. 829, mentions, that many persons have seen the chicken-pox in some measure confluent; and that he himself has known a considerable number leave a cicatrix behind. In p. 835, he relates an instance of a child, in which the eruption was not complete until the tenth day; and the last vesicle did not disappear till the fourteenth.

These last inoculations, therefore, with matter taken from Case 3d. instead of removing our doubts, only tend to increase them; and give us convincing proofs of Mr. Goldson's mistaken notions. Should he persist in them, and reason be now insufficient, time will probably convince him of his errors when it is too late, when the unfortunate subjects of these experiments will be snatched

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away from their deluded parents, and fall victims to that dire disease the small-pox.

Should this indeed unfortunately take place, it would not be the first time that thousands have been deceived in this respect, from having paid too little attention to the distinctions between the variola and varicella: and when we consult medical records, we too often meet with blunders, which reflect little honour on the profession. Mr. Ring has related several cases of this description; and if Mr. Goldson had consulted them, perhaps he would have been rather more circumspect in making experiments. Among others, there are two cases communicated by Mr. Paytherus, where an elderly surgeon inoculated his grand-daughter with supposed variolous matter; "and showed the case to his friends, as one of very mild small-pox. Mr. Paytherus having expressed his doubts whether the disorder was the small-pox, gave great offence. About three years after, the young lady had the small-pox of the confluent kind."

"This man of Ross pronounced another case of chicken-pox, concerning which he was consulted, to be a case of small-pox. Mr. Paytherus informed the parents, it was nothing but the chicken-pox; and, inoculating the patient soon afterwards with proper matter, produced the small-pox."

Mr. Ring adds another melancholy instance, which occurred in town some years ago. "A lady, who was going abroad, had her daughter inoculated by one of those impostors who, having swept out a drug-shop for some years, called himself an apothecary. When the young lady returned to England, she caught the small-pox, and died."*

Dr. Lettsom, in his observations on the cow-pox, as quoted by Mr. Ring, observes, that he had lately attended two young persons under the small-pox, each an only child of considerable family, who had been inoculated two or three years before by respectable men; and the mothers of the children shewed him, "what they conceived to be the marks, or pitting, from the inoculated small-pox. Happily they both recovered from an alarming eruption of the disease;" but, he adds, "Two relations I once claimed, who were inoculated with matter supposed to be variolous, by an eminent inoculator, afterwards caught the small-pox,

* Ring's Treatise, &c. Part II. p. 833.

pox, and to one of them it proved fatal."* I could add several other cases, which have happened in our times.

But we need not confine ourselves to our own times; we find such cases in older authors. Monro the grandfather, in his history of the small-pox inoculation in Scotland, says, that he knows several instances of the bastard kinds of small-pox, as he calls them, having been mistaken for the true small-pox. Both Cullen and Heberden maintain that medical men were often deceived by the chicken-pox, from its assuming the appearance of the small-pox. Fritze, in his Medical Annals, says, he has seen so great a similarity between the chicken-pox and small-pox, that he had very nearly been led into a mistake, and taken matter from them. Bond, in his defence of the small-pox inoculation, maintains, that if proper attention had been paid to the difference between the true and spurious small-pox, it would have saved the lives of thousands. Elsner, in his remarks upon the small-pox inoculation, cautions us to be on our guard not to mistake for the real small-pox, that species of spurious small-pox, which suppurates and can be propagated by inoculation; but which will by no means prevent an attack of the true small-pox. Condamine maintained, that the distinctions of eruptive diseases were far from being ascertained. Tralles made no scruple to say, that he believed a physician might be deceived, and take the chicken-pox for the small-pox. Schultz relates an anecdote of Gaubius, that once an eruptive disease was shown to him, which he declared not to be the small-pox; upon which another person reproached him that he did not know what the small-pox was. The event however proved, that Gaubius was not mistaken; as the patient afterwards caught the real disease.

Cases, therefore, are not wanting to prove, how often errors of this sort have been committed; and it is not to be wondered at in the least, that from such a want of knowledge, the idea should have arisen of persons having the small-pox twice. There are other cases on record, which have led to the same erroneous opinion; and it will perhaps not be amiss to consider some of them here. The first I shall take notice of, are cases of spurious eruptions, produced by inoculations with matter from the true small-pox.

 Dr. Jenner

* Ring, p. 860.

Dr. Jenner, in his first Treatise, relates an instance of a gentleman, who used to carry about him variolous matter, received on lint or cotton, and put into a phial while in a fluid state. The warmth of his pocket produced putrefaction. Hence, although inflammation, swelling of the axillary glands, fever, and sometimes eruptions, were excited, yet the unfortunate patients were as subject to the small-pox as before; and many, who thought themselves in perfect security, fell victims to that horrible disease.

Dr. Jenner mentions other cases, which occurred to Mr. Earle, surgeon, at Frampton upon Severn. This gentleman took matter from a pustule too far advanced, and inoculated five persons with it. In all, the arms inflamed, with fever, and swelling in the axilla. About the ninth day, an eruption appeared; which, however, dried away sooner than usual. Four of these persons afterwards caught the small-pox in the natural way, one of whom died, three recovered, and the other, being cautioned by Mr. Earle to avoid as much as possible the chance of catching it, escaped the disease through life.

A similar circumstance again occurred to this gentleman. He inoculated three children with matter procured by another person. The arms inflamed properly; fever and pain in the axilla came on; and in ten days eruptions appeared, which disappeared in two days. Being somewhat alarmed for the safety of these patients, from a similarity of their cases to those already mentioned, he inoculated them a second time with matter in its most perfect state; in consequence of which, they all took the infection of the small-pox again, and all had a full burthen.

Similar cases occurred to Bond, in his own practice. He inoculated several children with matter, which, as afterwards appeared, had undergone a decomposition. The children all had a spurious disease. He inoculated them afterwards with proper matter, and they had the true small-pox.

In all these cases, the matter was either taken at too late a period, or had suffered a decomposition; but there are cases related, where matter in its most perfect state was used, and still produced a spurious small-pox. Thus Bond mentions, that at one time he inoculated five persons with fresh matter, and all five got a spurious small-pox. At another time, he saturated a thread with variolous matter, and inoculated several persons with it, all of whom had the true small-pox. Part, however, of the same thread

hread he sent to his brother, who inoculated twelve persons with it, and all had a spurious small-pox.*

Elsner observes, that some experiments prove that matter taken from the true small-pox, when inserted into the body of some subjects, undergoes such changes as to produce an eruption, which pursues the course of the spurious small-pox; but that, in these cases, such an eruption does not prevent an attack of the true small-pox. He adds the following observation. Whatever is observed in the artificial infection by inoculation, holds true in the natural infection; and the variolous matter, under certain circumstances, may be so much weakened, as to produce a spurious eruption instead of the true small-pox.†

Vogel says, it is certain that, after the inoculation with the true small-pox matter, sometimes a species of spurious small-pox is produced, which is no preventive of the recurrence of the disease. He adds, this proves that the system is not always prepared to produce the true small-pox.‡

Cüsson asserts the same, and relates an instance where he saw two children inoculated with the most genuine small-pox matter. The arms inflamed in the usual manner, attended with fever, vomiting, &c. on the seventh day, which was followed by an eruption that did not maturate. The gentleman who had performed the inoculation, was perfectly satisfied that the children had undergone the true disease; the more so, as he had taken matter from the arms of these children, and inoculated others with it successfully. The event, however, proved that he was mistaken; for these children afterwards caught the small-pox in the natural way.‖

The last cases I shall consider, which have led to the idea of a second infection of the small-pox, are either those in which, from improper treatment, an imperfect eruption has taken place, or where, by a supervening disease, the small-pox has been for a while suspended. In the first instance, the matter retained will afterwards find its way outwards, sometimes in the form of abscesses, but most frequently in that of an eruption perfectly similar to the

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* Vertheidegung der Einpfropfung der Blattern, s. 63.

† Ein Paar Worte Uber die Inoculation, s. 47.

‡ Handbuch, &c. Th. 3, s. 10.

‖ Cüsson, Recherches sur les irregularités, qui presente quelque fois dans sa marche la petite verole inoculée, et sur la confiance, qui mentent ces sortes d'inoculations irregulaires.

the real small-pox. In the latter, the small-pox will reappear, and finish its regular course as soon as the supervening disease has ceased to exert its influence upon the system.

Sidobre relates an instance of a lady of quality, who, after such an imperfect eruption of the small-pox, was not only attacked with fistulous sores, but affected, during the period of eighteen months, with an eruption similar to the small-pox; and a fresh crop of pustules used to break out again, as soon as the former had fallen off.

De Haen mentions, that a boy, three years old, after a severe and ill treated small-pox, continued to be in a weak state of health; that, fortunately, an abscess was formed on his breast, which for some months continued to discharge a quantity of matter. After this, the child began to recover; and in a short space of time, an eruption perfectly similar to the small-pox, again made its appearance.

Hensler corroborates the same; he mentions, that a child had the small-pox in so mild a form, as to require no confinement. He saw the child three weeks after: the pustules were then dried up; the crust, however, did not fall off, but adhered to the skin below, and discharged a sanies which excoriated the parts immediately surrounding it. They itched considerably; and the child was fretful. Hensler ordered the parents to give him from time to time a mild laxative; nevertheless, four days after, the child sickened again, and an eruption appeared, which in some places was confluent. After the eruption dried up, this unfortunate sufferer died of pneumonia.

This author likewise relates, that two boys caught the infection from an elder brother, who laboured under the small-pox. The eldest became feverish on the 3d of January 1762, and continued so till the 10th, when small red spots made their appearance. On the 11th, they were elevated. On the 14th, they were filled with matter; and about the 16th, they began to dry up; the scabs, however, remained for a long while after. Since that time, the boy continued more or less sickly till the beginning of April, when he became feverish again; and after two days an eruption appeared, consisting of large pustules, surrounded by little or no inflammation. They were broad and flat, and filled with a yellow purulent matter. They dried up very slowly. In the youngest the fever took place at the same time with that of the eldest; but he had fewer eruptions. When these dried up, a new crop succeeded; and this succession of

of fresh crops coming, and going again, continued till April; when the last and most copious eruption took place.

Hufeland relates several instances of the same description. He is of opinion that the antiphlogistic regimen, carried into extremes, too great exposure to cold air, and the abuse of mercurial purgatives, have been the causes which have produced them. He has once seen it occasioned by a strong emetic, given at the beginning of the disease. He likewise mentions several instances, where the measles, the scarlet fever, &c. had suspended the small-pox for several days; and two cases of inoculated small-pox, where the arms properly inflamed, accompanied by fever, and eruptions of small red spots, together with a strong variolous smell; yet a stop was put to the farther progress of the disease by a supervening influenza. These children, eight weeks afterwards, caught the small-pox in the natural way.*

From a due consideration of the above facts, I must confess that I am rather sceptically inclined, when cases are related, of persons having the small-pox twice. It would be presumptuous in me to deny the possibility of a second infection; several of the most eminent men in the profession have admitted it; and it is with deference to their superior judgment, that I wish to offer mine.

All that I mean to demonstrate is, that the study of this important subject has been shamefully neglected; and that the distinctions between the true and the spurious small-pox are but imperfectly known; witness the pamphlet under consideration. When, therefore, we hear of such cases, we ought to be very cautious, before we pronounce our opinion.

The idea, however, of a second infection of the small-pox, is by no means of modern origin. It seems to have been a favorite topic among the older medical writers. *Amatus* relates, that children, and even adults, who had the small-pox, were infected again at Ancona, in the year 1551. *Forestus* mentions, that at Delft, in the year 1562, and 1563, during a foggy season, not only children and adults, but likewise some old people, who had undergone the small-pox and the measles, were again attacked with similar eruptive diseases. Stalpart Vander Wiel saw a child who, three weeks after the small-pox, was infected a second time. Diemerbroek, during a violent epidemic

* Hufeland Uber die Blattern, p. 262, 263.

mic, frequently saw a second attack of the small-pox, when the patients were scarcely recovered from the first. Some had, in the course of six months, three different eruptions. A son of Forestus, four years old, had, in the year 1551, the small-pox twice; and afterwards, the measles. Similar instances are said to have occurred in the provinces of Holland, Zealand, and Guelderland, during the epidemic in the summer of 1753. Something more wonderful than all this is related by Forestus. He tells us, that a certain good woman at Boulogne had the small-pox seven times, and died of it in the 118th year of her age.

Ere I conclude, it is incumbent on me to state, that I have made inquiries relative to Mr. Goldson's assertion, that cases of failures have happened in the Isle of Wight. The result of them is, that a child, under the care of a medical practitioner at Newport, had the chicken-pox after the cow-pock; and an enemy to vaccination propagated a report that it was the small-pox. Another case occurred to Mr. Morton, of the Hospital Staff; he himself informed me, that he was under the necessity of taking matter from a pustule too far advanced; that the child inoculated with it had a spurious cow-pock; and that it caught the small-pox before he had an opportunity of inoculating it again. Mr. Goldson pretends to forbear noticing any cases upon mere report; yet he takes notice of them whenever he can; and since his publication, he and his friends have circulated such reports with great industry.

In taking leave of Mr. Goldson, I earnestly advise him to abandon the weapons he has hitherto employed. Idle tales are of little avail; and, even by his friends, can only be looked upon as a last resource.

He who, from a zeal for the discovery, should suffer his eyes to be shut against conviction, and attempt to conceal its failures, would indeed commit an act beneath the dignity of the profession; but he who imposes on the ignorant, under the mask of candour and moderation; who spreads vain alarms, and provokes controversy upon a subject in which he must so sensibly feel his own deficiency, is guilty of a deed far more beneath the dignity of the profession; and far more unbecoming one, who is intrusted with the happiness and welfare of the public.

Isle of Wight, August 27, 1804.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AS Mr. Goldson's pamphlet has excited some doubts in the breasts of many, as to the permanence of the vaccine influence, I have sent you the following experiment, which, indeed, has been made by hundreds before; but as nothing will tend more to silence the objection of its enemies, and confirm the expectations of the friends of the cow-pox, than a publication of facts, which prove its security, I should hope that from every quarter vacciolation will receive a support which its importance demands, and in which every friend of humanity is interested.

In the year 1801, a gentleman inoculated his own two boys and two of his servants with vacciolous matter, that was sent by Dr. Pearson; on the eighth, tenth, and twelfth days I saw their arms, and was well satisfied that vacciolation had taken place. Since then, they have frequently been exposed to variolous contagion, and the parent was convinced it could have no effect on his family, till Mr. Goldson's pamphlet raised his fears. To ease his mind, I inoculated with variolous matter his two boys, one of the servants, and two others who had never been inoculated in any way. The arms of the boys and the servant inflamed from the third to the seventh day, when it gradually subsided, and on the ninth no mark was visible; in the two others, the small-pox pursued its usual course; the eruptions indeed were not numerous, though the eruptive fever was troublesome for two days. There is no occasion for comment, as the fact speaks for itself.

I am, &c.

FREDERIC THACKERAY.

Cambridge, September 4, 1804.

P. S. After numberless inquiries in this county, I have never but once met the cow-pox in the cow itself; and it was deemed such a curiosity in the parish, that I was requested to see it; it belonged to the blacksmith. He could assign no reason; and told me, that he had seen no horse with the scratchy heel for some time. As the herd passed by, I observed, that the bull had his foot tied up, in consequence of a sore in the hoof. They who believe that the greasy heel of the horse is instrumental in producing vacciola,

ciola, may think that a similar matter may be secreted in the ulcerated hoof of the bull; and that, in the above instance, the dug of the cow had rested where the diseased foot of the bull had trodden.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

WHILE "diseases, like empires, have their revolutions; old ones dying away and ceasing to be heard of, and new ones arising in their place still more formidable and dangerous, as being less understood," the attempts to account for these changes have produced various conjectures. The dreadful Variola has had its rise, its extensive and desolating spread, but now seems happily verging on its extinction. Arising, according to the Arabian authors, in their country, about the time of the commencement of their Hegira, or in the early part of the seventh century of the Christian æra, and first appearing in Egypt in the reign of Omar, the fanatic, who destroyed the library of Alexandria, its origin has been referred to the camel; and after what has been developed in our country, respecting the casual infection of milkers from the cow, the idea may appear plausible. I have often seen the Arabs lying down at night, to take their sleep by the sides of their camels; but is there any other animal which has been longer under domestication than this creature, 'patient of fatigue'? And if from such source, might we not expect some account of the dreadful disease among the patriarchs; some regulations respecting it in the Mosaic institutes; some notice of it by the earliest medical writers of the Greeks? The vulgar notion that Satan inflicted the small-pox on Job, when he smote him with sore boils from the sole of his foot to his crown, must be quite an absurdity. We do not find that any of his friends who came to see him were infected; and there is no mention of their having particularly received a protection from the tormentor.

Perhaps the idea that has been entertained, that the small-pox is no other than degenerated cow-pox, may at last be found to be a correct opinion. I am very naturally led to this surmise by the perusal of the first paper in your last Number. The author, there, (whom I have heard with a great

a great deal of pleasure on the subject of cancer, hydatid, &c.) mentions his having inoculated a patient already under a cutaneous affection, three times with vaccine lymph, without producing the local effect; but after she was cured of the first disease, a large number of vesicles appeared in various parts of the body. He says, moreover, "This was not the only instance in which I had reason to believe, that though the local effect of vaccination might be superseded by other causes, yet when those causes ceased, a disposition to the disease, which was formed at the time of insertion, is now brought into action, and shows itself by a general eruption. I very much think that this occurrence is more general than is suspected, and that some of those eruptions which have appeared at a remote period after vaccination, and which the zealots on one side have called small-pox, and those on the other chicken-pox, have been vaccine vesicles. I have already given cases of this arising from a peculiar state of the atmosphere."

Now, if the conjectures be right, that vaccine lymph (vacciolous matter) can under any circumstances produce general eruption; in such departure from its original character we have perhaps one, a first, step of vacciola to its degenerated state of variola. From the earliest pastoral ages, and in various parts of the world, milkers may, in tens of thousands of instances, have received cow-pox; the indisposition produced by it being soon forgotten when it was *once* past. The world at large would, probably, have been ignorant of the existence of such an affection as that of cow-pock in the human subject, had it not been discovered that it protected the system from small-pox. According to the theory of our author, it may have happened in many instances, that the casual inoculation may not have produced its local effect. The milker, already under the influence of some other disease, may have resisted it till such previous disease passed away, when an eruption of vaccine vesicles ought to follow.

If in any constitution, or under any affection of the system, cow-pock could be so modified as to become an eruptive disease, in some disastrous period, we may naturally enough suppose, it may also have become a contagious one; and if so, the most dreadful form of small-pox could not be more horrible than it might immediately become. A case of confluent cow-pox, such pocks as the lancet now produces, were such a thing possible, would as certainly destroy the subject as the act of fleaing him alive.

I presume

I presume the author means by '*after vaccination*,' what I should express by *after insertion of vacciolous matter*, or *after the attempt to vacciolate*; and yet, when he mentions that zealots on one side have called the eruptions after it by one name, and those on the other by another; I am at a loss to comprehend him; because, if it were only *after the attempt*, the advocates of vacciolation would have no cause of surprize or disappointment in finding small-pox; the opponents no triumph. And can the author be correct in referring cases to a peculiar state of the atmosphere? Never having noticed any varieties of appearance or effect produced on vacciola by any diversity of diet, from that of the mother's milk alone to that of salt provisions at sea; nor by any change of atmosphere, from the freshness of the vales of Gloucestershire, or the banks of the Seine, to the dampness of the fields of Holland, or the palpable fogs and smoke of London; from the heat of Gibraltar during a Levanter in Autumn to the coolness of a ship; I cannot help thinking that his manner of accounting for peculiarities must be only hypothetical. Perhaps also his conclusion, that the eruptions in question arose from cow-pock matter, may, after all, have no better foundation than hypothesis.

On the origin of small-pox, which I had hoped I was arriving at through the observations of the author, I find, to use a phrase prevalent in this mercantile country, I am still at sea.

The Author thinks that it would be desirable to have a centre of communication in the metropolis, to which every anomalous case should be referred. The Royal Jennerian Society has such centre: its Medical Council is a Committee, composed of fifty professional men, Physicians, Surgeons, and Apothecaries; perhaps, greater talent than it includes is not to be found in any country. From the beginning it has given notice, that communications of *real importance* would meet with ready attention from it; requesting, that they might be drawn up concisely, and *well authenticated;* and when such communications have been made, they have been respectfully answered, to the satisfaction of the writers. Moreover, the post-masters-general have had the liberality to frank the correspondence of the Society, which amounts, weekly, to several pounds.

Your's, respectfully,

Salisbury Square, 16, ix, 1804. JOHN WALKER.

To

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

DR. WALKER (No. 67, p. 242, Note) wishes to settle a proper or Classic term for Cow-pock, &c. *Vaccine*, French, is from the Latin: but it is objectionable, with all its derivatives; because, as Dr. W. observes, milk, butter, and cheese, are all vaccine: and, indeed, the word more properly belongs to *them* than to the disorder. Milk is by Pliny adjectived with the word, *lac vaccinum*. Ainsworth, for want of higher authority at hand, must be referred to. *Vaccīne* alone, means *cowy*; to *vaccīnate*, is to cow, or to make of or like a cow; *vaccīnation*, is the making of or like a cow. In short, vaccinate, cannot be.

Dr. Jenner's *variola vaccina* is good, but *two* words; and the term is wanted to be comprized in *one*. What Dr. W. calls the more happy term of Stokes, *vacciola*, cannot be admitted. It has a derivative form and termination; but whence is it derived? Not from *vaccia* or *vaccius*, for there are no such words; nor could there be from *vacca*, a cow: and if there could, *vacciola* would only mean, *a little cow*.

Variolæ, literally signifies, *small varieties*, that is, the spots or pits of small pocks with which the skin is varied. But the word is but a translation of *small-pox* by modern physicians. *Vara*, the disorder of *small-pocks* or *measles*, Ainsworth gives, from Littleton, as the authority of Pliny. This word also relates to the skin being *varied* by spots, pocks, or pits.

To find, therefore, one word to express the meaning of two, it may be a compound from two that are shortest. *Vaccæ-vara* put together, *vaccævara*, might express, *the cow-pox*. The word vaccævara would be what the Metricians or Grammarians would call a fourth Epitrite; that is, having the three first syllables long, and the fourth short. Thence might be, *vaccævarous matter*, (accent on the third syllable, on account of the quantity being long, and NOT on the second, like *cadāverous*). Thence also, *vaccævarátion*, and *vaccævarate*; accent on the fourth of the former, and on the third of the latter.

Varus and *varius*, Latin, being the same, but the first the original, the other derivative, *varation* must mean *variation*; so that *vaccævarátion* or *vaccævariátion* might either be used from *vaccævára* or *vaccævărĭă*.

Obiter,

Obiter, the vulgar and indelicate word *man-midwife*, should be hunted from the fronts of country laboratories. *Accoucher*, Fr. would soon be corrupted to *coucher*. Analagous to *obstetrix, fem.* is *obstitor*, in point of sense; and to *institor* it is analogous in form and composition. *Institor* is Horatian, and classical; why not, then, *Obstitor*, *ab obstando, vel obsistendo auxilii adferendi causa*?

Brainular, scarlatina, caloric, cum multis aliis, seem barbarisms.

I am, &c.

Sept. 6, 1804. PHILOLOGUS.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

HAVING observed some inconveniencies in the received screw tourniquet, arising from its size and weight, I was led to consider how they might be obviated; and after some attention to the subject, have constructed one, a drawing of which I send you, which will, I hope, have the desired effect. It likewise appears worthy the attention of the army, as it is considerably cheaper than the screw, and much more convenient than the field tourniquet.

Dublin, I am, &c.
July 11, 1804. ANDREW BLAKE.

EXPLANATION OF THE PLATE.

Fig. 1. Is a perspective view of the instrument.

2. Is a geometrical view of the lower part of it, shewing the situation of the pieces FF and C.

ABCD Is the brass frame of the apparatus, of which A and B are the upright pieces, and CD the bottom plate.

EEE Is the pad.

FF Are rollers under which the strap passes.

G Is a similar roller of a large size, having a slit through it of sufficient dimensions to admit the strap.

H Is a flier, by which the roller C may be turned, and consequently a portion of the strap wound up on it.

I Is a rotchet wheel fixed to its other end, and which with the springs K and L, prevent the roller from running back; by pressing on the end of the spring L, the wheel I, together with the roller G, and the strap, is released.

The letters of reference to Fig. 2, are affixed respectively to the same parts of the apparatus as in Fig. 1.

CASE

Screw Tourniquet.

Fig. 1.

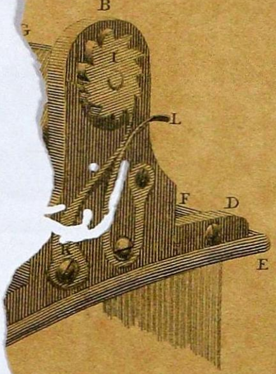
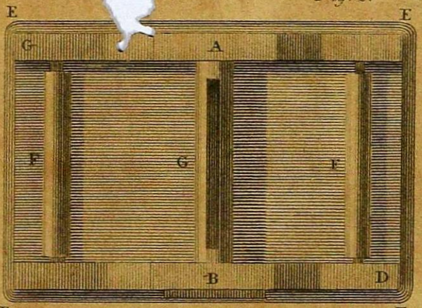


Fig. 2.



Dr. Patterson's Case.

p. 198. Vol. 12.

Fig. 3.

Printed for Richard Phillips 71 St. Pauls Church Yd.

...BATTY.

My de...

I Have sent y... Medical Journal, the publication of whic... tend to encourage doubtful endeavours on simil..., rather than abandon the unfortunate to certai... The only cause to which I can attribute this extra... power of resisting a fatal disease, was the establishe... habit of drinking spirituous liquors, the influence of wh... have remarked, in other instances, to retard infla...tory terminations. The case may serve also to suppor... the practice of operating for strangulated hernia, even in the most advanced stages, and under disagreeable symptoms.

I am, &c.

Soho Square, Sept. 3, 1804. A. CARLISLE.

ANN SPOONER, a corpulent woman, aged 56 years, for some time a resident in the Westminster Hospital, had an umbilical hernia, protruding about the bigness of half an ostrich's egg. The parietes of the tumour were thin, the contained viscera adhered to the sac, and the aperture in the abdomen was capable of admitting three fingers. She had several times suffered temporary strangulations, which had been relieved by bleeding from the system, and topical bleeding with leeches, &c. On the morning of the 28th of August last, as she drew up her stocking, a sudden protrusion took place, and the hernial tumour became painful and strangulated. The usual methods were employed, but at two o'clock the same day, the tumour burst its coverings, having become mortified, and a large portion of intestine, inflated, and of a livid hue, protruded into the bed. The distention of the intestine prevented its being returned; warm fomentations were applied, and opium with cordials administered. At ten o'clock in the evening I found her with the protruded intestine perfectly dead, and putrescent. A line of separation marked the two living ends, the intermediate mortified portion was found to be a continuous canal, and, as it afterwards proved, upwards of seven feet in length. The mesentery was alive within half an inch of the gut, a line of separation being

visible, and the peritoneal ... testine was vesicated at th[e] ... nt's strength and spirits were goo[d] ... , converse with coolness, and wa[s] ... [ord]inary wants and accommodations; her ... [h]er skin warm and perspirable, and she ... I felt a strong desire to remove the morti[fied] ... and to bring the two living ends of that ca[nal] ... [togethe]r by ligature, over a roll of tough paste; but i[t was th]ought too hazardous for the small chance of good ... [d]erived. On Wednesday, the 29th, she contin[ue]d [as b]efore; the intestine became more putrid and more infla[med;] her pulse was regular, and from 105 to 120; she had occ[asi]onal hiccup; her strength was by no means sunk. It was still judged imprudent to attempt any operation; she took wine and opium, and had a small alvine evacuation. The pulp of scraped carrot root was applied over the mortified parts, to diminish the putrescent effluvia. Without any remarkable change in the symptoms, in the appearance of the parts, she continued to become gradually weaker until four o'clock on Friday, the 31st of August, when she died.

On opening the body, the peritoneum and all the viscera contained within the abdomen were free from the marks of inflammation; the mortification of the bag which had contained the protruded intestine, was limited to the margin of the hernial aperture, which was about two inches in diameter. The previously adhering parts of the hernia had been all pushed out, and become disunited by the solution of the membranes. The sound border of the mesentery, and the two sound ends of the gut, were ulcerated on their surfaces, and covered with a purulent fluid. The mortified portion of gut proved to be the intestinum ileum, the dead part terminating within two inches of its entrance into the cæcum; it was measured, (after a partial dissection from the mesentery) and proved to be six feet three inches, although it was not nearly extended into a straight line.

The remarkable points of this case are, the long continuance of life and the limited injury sustained from such extent of disease. The practical inference to be deduced seems in favour of an operation such as that proposed; but it cannot be expected that many cases will occur, wherein the powers of life shall suffer so little, and the disease be so strictly confined.

To

T[torn] he Medical and Physical Journal.

GENT[torn]

I Have taken [torn] sending you a statement of the following case [torn] ded brachial artery, the most essential point in the [torn] ent of which, I learnt from a communication in the [torn] ical Journal, in the month of July, 1802.

I am [torn]

Plymouth-Dock. J. J. SMITH.

CASE.—Edward Kelly, on the 8th of December, 1802, wounded himself with a razor in the arm near the usual place of venæsection, carrying the instrument to such a depth, as partially to divide the brachial artery: The hæmorrhage had almost proved fatal when I first visited him, and I had immediate recourse to the effects of pressure, which in the present languid state of my patient succeeded in arresting the bleeding.

On the eighth day afterward, a slough took place from the wound, and a profuse bleeding succeeded, for which the tourniquet was applied; and as nothing but an operation afforded the hope of saving the life of my patient, I immediately performed one, for the purpose of tying the artery. The arm was much distended with extravasated blood, it was cold and livid, and vesications had already formed near the wound, which had discharged a bloody ichor, and shewed a state approaching to gangrene. I made a longitudinal incision of four inches across the wound inflicted by the razor, which gave me room to proceed in the after steps of the operation, and afforded an opportunity of removing the coagulated blood with which the arm was loaded.

The fascia being laid bare, and then cautiously divided, exposed the ends of the wounded artery in such a manner that the vessel could be readily secured. A ligature was passed around the upper part of the vessel near the orifice, and this being tied in a knot, and the end of it being armed with a needle, the needle was thrust through the artery below the circular ligature, and the thread was tied into the knot previously made upon the vessel.

The same was then effected in the other end of the artery,

artery, which was now an inch below ... was dressed superficially with the lig... om it. On the eleventh day the ligatur... and the wound was healed in two month... vented by a bad constitution from unitin... motion of the elbow is perfect, and the arr... before, if allowance is made for its being sli... under any great exertion. The security which ... ined by passing the ligature through the artery, ... the orifice than where the thread is circularly appl... induced me to adopt that practice in the case which ... ve related, and some such security seems to be necessa... from the cases of hæmorrhage which have happened ... er the operation for the aneurism, and which have been also known to occur after amputations, which have been performed so near to the body, as to expose the ligature to great impetus of blood from the action of the heart; for I lately witnessed an instance where the arm was amputated near the shoulder joint, and the brachial artery considered as secured; when, upon loosening the tourniquet, a violent bleeding succeeded from the ligature being forced off the extremity of the vessel, but which fortunately happening before the surgeon quitted the room, the life of the patient did not become a sacrifice.

To the Editors of the Medical and Physical Journal.

Gentlemen,

I Consider it a duty in every practitioner to make as public as possible any circumstance that experience may have thrown in his way that may tend to the alleviation of the calamities of the human race, even in the slightest degree: and under this impression, I am induced to offer you a trifling remedy for the cure of agues, which I have proved to be extremely successful. I am attached to a regiment here; and on my arrival in the latter end of May, found seven or eight of our soldiers labouring under obstinate intermittents: every remedy that is usually prescribed for such cases, had been exhibited without effect. I recommended that each man should take half a grain of tartar antim. the moment he felt the paroxysm approaching, and repeat the dose in about ten minutes or a quarter of hour

hour; it generally produces only nausea, but sometimes vomiting; it lessens immediately the duration of the fit, and its severity, and the patients express a great wish that the same medicine may be again prescribed them: in a week or ten days the whole were completely cured.

His Majesty's 24th regiment came into these barracks about six weeks since, and, among the number of their sick were two of agues, of long standing. I proposed to Mr. Featherstone, the surgeon, to allow me to give them the antim. tart. which he very liberally and readily consented to, observing, that he had been giving them the arsenical solution, bark, and every thing he could think of, without effect: These men had no symptoms whatever of ague at the expiration of five days.

In a voyage I once made to India, I had an ample opportunity of proving the good effect of producing sickness in this disease. Our ship was lying in Whampoo River, in China, during the time the Paddy-fields were overflowed, and agues in a short time became so very prevalent among the crews of the different Indiamen, that some of them had not men left sufficiently healthy to perform the regular duty of the ship. The ship of which I was surgeon (the Caledonian) was nearly in that state; my practice at that time was to give emetics previous to the accession of the paroxysm, and I found no difficulty in curing very soon every case that came under my care. But I have every reason to believe that vomiting is not at all necessary to the cure; that nausea is alone sufficient; and I beg to ask, may not the good effect produced by arsenic in this disease arise purely from the sickness it causes, and not from any tonic power it possesses?

I am, &c.

Woodbridge Barracks, Suffolk,
September 9, 1804.

B. G. SNOW.

To the Editors of the Medical and Phyfical Journal.

GENTLEMEN,

YOUR Correspondent, Dr. Blegborough, discovers a *cocoéthes scribendi,* that almost necessarily betrays him into a *cacoéthes errandi.* That multifarious writer conceives his notions to be so many *fiats,* to which implicit acquiescence should be given. His speculative wanderings, how-

ever, are not scientific truths; nor do they tend to illustrate the practical difficulties he would wish to explain.

The Doctor's view of temperature, in your last Number, presents a singular example of inconsistent inquiry. He imagines heat to pervade and fill the animal body, as water may occupy a sponge; and as that fluid may be pressed from the latter, so the matter of heat, the Doctor thinks, may be abstracted from the former. Were this the case, the most refrigerant process that could be instituted would be brisk friction; and, consequently, instead of cold water being applied as an appropriate remedy to an inflamed part, mechanical rubbing would more readily squeeze out the morbid excess of heat.

The Doctor speaks at one time of heat being a stimulant, sufficiently powerful to excite the worst forms of typhus fever; and at another affirms, that it so expands the vessels, as to render them incapable of contractile exertion. But, notwithstanding this vascular inaction from excessive heat, the Doctor acknowledges that the various phenomena of violent fever still obtain.

The Doctor also, with licentious speculation, aspires to inform the public, and particularly that distinguished medical philosopher, Dr. Currie, that the exacerbation and remission of febrile heat are governed by the different degrees of atmospheric temperature, at the periods when these changes respectively occur. The Doctor then as familiarly speaks of removing a pint measure of material heat as he would of an equal quantity of blood, and deduces important mechanical relief to the system, and particularly to the brain, from the abstraction of that expansive fluid.

This very visionary reasoning has been induced by a total forgetfulness that the subject of inquiry related to animal life, endowed with the power of generating salutary heat, agreeably to the laws of repulsive motion, and of transferring to surrounding media that which may be redundant; that if the atmospheric temperature be freely applied, no morbid surplus of heat is likely to occur; and that when it does present, it in no shape mechanically and stationarily amasses, but that it directly results from the morbid action of vessels generating the exuberant portion of that motive principle.

The mere abstraction of the Doctor's morbid accumulation of heat, can have but little influence in curatively reducing either the excessive temperature of typhus fever, or that of inflammatory affection; the abstraction must be uninterruptedly

uninterruptedly continued, until the diseased action which furnishes it be superseded by that which is healthful, and which is recognised by the sense of salutary heat.

Instead of vital heat being an extraneous something, mechanically running through the animal system, and either generally or partially amassing and proceeding to febrile or inflammatory excess, it is the very principle of living motion, actuating, regulating, and equipoising the various functions of the animal economy; its offensive excess is obviated by the evaporating or abstracting agency of cuticular perspiration, and that of the various other secretions.

When obstacles occur to these refrigerating outlets, redundant heat will arise, which may variously disorder the motive conditions of healthful excitability; sympathies may be also engendered, which may diversify the external character of the affection. Under these circumstances, the indication of immoderate heat afforded as well by the natural sense of feeling as by thermometrical test, will direct to the suitable reduction of temperature. The mode of applying this relief may be adapted to the temperamental sensibility of patients; but it will in general be found, that Dr. Currie's plan of suddenly dashing cold water over the surface of the skin, will at once effectually dissolve the morbidly associated actions which may have been formed, and promptly transfer the redundant heat. The mode by sponging may also ultimately avail; but it is much less likely to produce the salutary change in the inordinately generative action of heat, and its diseased sympathies, than the more impressive shock induced by its instantaneous application.

Dr. B. is on philosophic ground, in investigating the influence of animal temperature on diseases; but his inquiry must be neither gratuitously nor incongruously conducted. The Doctor must not advance as tenable, doctrine, which, to unprejudiced reason, appears indefensible, without the aid of facts to justify its recommendation; nor must he, at one time, contend that morbid excess of temperature ought to be reduced by *cold water*, and that, at another, *steaming heat* or the *vapour bath*, is best adapted to produce that effect!

Less disposition to assert, and a more earnest endeavour to correct and mature, crude and hasty views of the motive laws of the animal economy, may qualify the Doctor for intricate researches in Medical Philosophy, and afford him a better title than he has yet discovered, for offering

hints of practical improvement in the theory and management of diseases of temperature, to so able an investigator as the much and deservedly respected *Author of Reports* on that subject.

CANDIDUS.

St. James's Street, Sept. 12, 1804.

To the Editors of the Medical and Physical Journal.

Gentlemen,

On reading in the Medical and Physical Journal for April, the ingenious method, proposed by Mr. Hardman, to open an abscess by means of an exhausted cupping-glass, it naturally occurred to me, that the same mode could be most effectually employed in various other instances, where it may be requisite to extract morbid or extraneous fluids, especially when no time should be lost to afford relief.

Those who are conversant in Surgery, and its daily practice, may, possibly, suggest a great variety of other cases, in which this mode of operating can be advantageously followed; there is, however, one, of the utmost importance, in which it may afford an immediate cure, and completely prevent the most afflicting and direful malady, to which a living body is liable, that is, *Hydrophobia.*

It can only be ascertained by fair and repeated experiments, whether we can depend upon this as a secure preventive; and it certainly should not be condemned or refused until we have had the most undeniable proofs of its inefficacy.

The moment an accident of this kind has happened is, evidently, the only period to apply the glasses, with any prospect of success. A more powerful degree of suction can easily be obtained by the use of a glass receiver, furnished with a stop cock, and exhausted by the air-pump. The mouth of this vessel should not be very narrow, as it may be proper and convenient to cover all the tooth-marks at once, if possible, or in as rapid succession as may be. The blood, if it flow, should be instantly wiped off with a sponge; and it would be prudent to repeat the operation at least once more.

Besides canine-madness, this method should be tried in all

all similar cases; and the very same means pursued, whether the wound has been inflicted by a rabid or poisonous animal, or by a poisoned instrument.

I may, perhaps, have stumbled upon what has already been publicly noticed and recommended by others; if so, I can only assure you, this communication arises from the best intention, and, should it be found destitute of original merit, I hope you will reject it. I am, &c.

Long Acre, Sept. 13, 1804. J. HUME.

Short Statement of the Result of the Practice in the Hospital for Prisoners of War at Norman Cross. *Communicated by* Leonard Gillespie, *appointed Physician to the Fleet in the Mediterranean Sea.*

THE depôt for prisoners of war, established last war on the hill of Norman Cross, is situated on the north road, seventy-six miles north of London, and overlooks on the north-east the lake called Whittlesea Mere, distant about three miles, together with the extensive plains of fen-land, which extend for upwards of thirty miles in a north-east direction from Norman Cross to the borders of the gulph on this coast, called Boston Deeps. The buildings are of wood, and have been occupied by French and Dutch prisoners of war since the commencement of the present war in numbers varying from 1600 to 1000, who have enjoyed a very tolerable state of health since their confinement at this place, as will appear by the enclosed abstract of the numbers received into the hospital. The air of Norman Cross, notwithstanding the vicinity to the fen-lands, is salubrious; the soil is dry and calcareous; the water is drawn from wells in depth from thirty to sixty feet, and is a little hard, being impregnated with a small quantity of earthy salt, probably gypsum, preventing its lathering with soap. The patients in the hospital are, to the honor of the Commissioners for Sick and Wounded Seamen, under whose protection they are placed by Government, treated precisely as our own seamen are in naval hospitals, and of course have every proper attention paid to their comfort, and to the re-establishment of their health. The diseases most prevalent amongst the prisoners of war at Norman Cross, during the winter, were catarrhal complaints, sometimes degenerating into peripneumonia and carditis, fatal instances

instances of which occurred, indicated by great anxiety, oppressive pain at the sternum, irregular pulse, and dry cough; and in which cases, dissection proved, that the heart, as well as the lungs, had been really inflamed. Several of these catarrhal complaints also include phthisis pulmonalis.

Rheumatic complaints were also very common, and numbers of the patients were afflicted with rheumatic fever of a remittent type, protracted beyond the period of a lunation.

Many cases of troublesome chilblains occurred to the prisoners who had not sufficient cloathing in the prison; and the itch affected about one hundred of them, who in the spring were without much difficulty cured in the usual manner. During the spring and summer months some hundreds of prisoners having been sent from prison ships in the river Medway, many of them were affected with tertian fevers; in a few cases, of the regular double tertian type; remittent and intermittent fevers also attacked a few of those prisoners who had remained at Norman Cross during the preceding winter.

A few instances of putrid fever occurred in some patients, which, from the symptoms and protracted length of the disease, might be justly termed typhus; whilst in two or three cases the violence of the symptoms, the ardent heat of skin, intense thirst, parched foul tongue, icteritical suffusion of the skin and of the eye on or before the sixth day, atrabiliary or dark alvine evacuations, and rapid progress of the diseases, seemed to entitle it to the appelation of febris ardens of Hippocrates and his disciples, or to that of the yellow fever (vulgarly so called) of the West Indies.

In no one of these cases was the disease propagated by contagion; the common precautions to prevent it were practised. In those cases of ardent fever it was found highly advantageous to shave the head, to sponge the whole of the body frequently in the day with vinegar, to administer saline draughts in the act of effervescence, to give lemonade for drink, and to administer frequent cooling acidulated injections, avoiding the bringing on of a diarrhœa, or when present, moderating it by the infusion of Columbo root aided by rice water, sago, arrow root, gruel, &c. In the low stage of the disease large blisters successively applied, and the discharge from which was kept up for some time, were principally depended on, aided by wine, camphor, and bark. In intermittent fevers the use of

of ligatures on the extremities were frequently attended with the effect of checking the violence of the paroxysm, when applied before the cold fit came on.

The scurvy, in its incipient stage, affected many of the prisoners who had been sent from Chatham, and who had lately come from the West India Islands; the usual symptoms of this disease here made their appearance, as, laxity of and bloody gums, looseness of the teeth, fœtid breath, discoloration, a degree of rigidity and contraction in the flexor and adductor muscles of the lower extremities. These patients generally soon recovered by the use of vegetables aided by the fresh citric acid. It is proper to observe, that the patients affected with itch, a slight degree of scurvy, trifling ulcers (which were few in number and of a benign character, evincing the salubrity of the air of the depot) were, together with other patients affected with slight complaints, treated in the prison, which is airy and surrounded by tolerably spacious airing grounds, and consequently were not admitted into the hospital.

Copy of Abstracts of Quarterly Books containing the Number of Patients received, discharged, cured, dead, &c. in the Hospital for Prisoners of War, at Norman Cross, near Stilton in Huntingdonshire.

1803.	Last quarter. Received in the quarter ending the 31st of December		125
	Discharged cured in ditto	81	
	Dead in ditto	3	
	Remaining in the hospital, Dec. 31st.	41	
			125
1804.	First quarter. Remaining Dec. 31st.	41	
	Received in the quarter	213	254
	Discharged cured in ditto	179	
	Dead in ditto	3	
	Remaining on the 31st of March	72	
			254
1804.	Second quarter. Remaining	72	
	Received in the quarter	105	177
	Escaped in ditto	2	
	Dead in ditto	4	
	Discharged cured in ditto	111	
	Remaining June the 30th	60	
			177

1804. Third

1804. Third quarter, up to Aug. 31. Remaining	60		
Received up to ditto - - - - - - -	57	— 117	
Discharged cured up to ditto - - -	63		
Dead up to ditto - - - - - - - - -	3		
Remaining on the 31st of August - -	51		
	—	117	

Diseases, of which the Patients died.

1803.	Last quarter.	Phthisis Pulmonalis - - -	3
1804.	First quarter.	Peripneumonia - - - - - -	1
		Ditto with Carditis - - - -	2
	Second ditto.	Ardent fever - - - - - - -	2
		Typhus fever - - - - - - -	1
		Phthisis Pulmonalis - - -	1
	Third ditto.	Ulceration of the urinary bladder	1
		Phthisis Pulmonalis - - - -	1
		Typhus - - - - - - - - - -	1
		Total -	13

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Request you to communicate, for the information of your every-where spread Readers, the reception which Paris, as well as Edinburgh and Dublin, has given to the pamphlet of William Goldson. Your insertion of the following official paper will also tend to show the pains which have been taken to give it gratuitous diffusion.

Salisbury Square; 20, ix, 1804. JOHN WALKER.

Ministère de l'Intérieur.

Paris, le 8 *Messidor, An.* 12.

LE SECRETAIRE DU COMITÉ CENTRAL DE VACCINE, à MONS. NOWELL, Physician, No. 100, Great St. Martin's Lane, Charing Cross, London.

Monsieur,

La Société vient de recevoir par les soins de M. Blagden un petit ouvrage, intitulé, "Cases of Small-pox subsequent to Vaccination, with Facts and Observations: read

read before the Medical Society at Portsmouth, March 29, 1804. Addressed to the Directors of the Vaccine Institution. By William Goldson, Member of the Royal College of Surgeons, in London. Portsea, 1804.

Plusieurs faites contenus dans cette brochure méritent toute notre attention, & nous n'osons y ajouter foi qu'après avoir appris de vous quelle peut être la cause des evenemens qui y sont rapportés. Nous ignorons quelle confiance on doit avoir dans les assertions de M. Goldson; et jusqu'a ce que vous nous ayez instruit des moindres details, il est bon que nous nous tenions sur la defensive. Ces faits, s'ils existent, nous paraissent tellement extraordinaire, si peu conformes à tous ceux observés depuis longtemps dans tout le monde savant, que nous n'hesitons pas à croire qu'il y a eu quelqu' erreur commise dans la vaccination, ou qu'on a pu se tromper sur l'inoculation de la petite verole.

Quoiqu'il en soit, Monsieur, la nouvelle Société ajoute beaucoup d'importance à recevoir de vous tous les détails qui pourront l'éclairer, et elle ne doute pas que la plus grande impartialité ne vous guide dans la reponse que je suis chargé de vous supplier de vouloir bien lui faire.

Vous ne pouvez douter, Monsieur, de l'empressement avec lequel je saisis cette occasion de vous assurer de ma haute consideration.

TURRON.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

A Friend of mine having paid considerable attention to the physiology of leeches, and by his method of managing them has been enabled to preserve them fit for use for several years; has permitted me to communicate the result of his experience, through the medium of your useful and respectable Journal.

It appears that river water, though impregnated with foreign substances, is much preferable to spring water, particularly if it be suffered to stand in a cistern for two or three days previously to being used. It is necessary to give the leeches fresh water every day; and in cold weather, it should be in a tepid state.

The

The vessel containing them must be kept in a place where the temperature will not be reduced below 60° of Fahrenheit.

When you put them into fresh water, you will sometimes observe a greenish excrement come from them, in the form of a thread, which will discolour the water. Whenever this is perceived, it is better to renew the water immediately. You will often see their bodies encircled in various places with pieces of tough, light coloured mucus; this should be removed by gently rubbing them with a soft rag, as they are frequently unable to get rid of it themselves; and, unless this is done, they become sickly, and injure the rest. This seems the most formidable complaint to which they are subject; and on its removal you will be convinced, by the liveliness of their motions, that you have removed an unpleasant and an unhealthy load from them.

If these observations be attended to, and the leeches not too much crouded in the vessel which contains them, there will soon be no reason to complain of their scarcity.

I am, &c.

Nottingham, Sept. 6, 1804. JOHN WHITLAM.

On the Preparation of nourishing Broths from fresh and dry Bones, by Mr. HERMBSTAEDT.

FLESH, without fat and bones, consists of jelly, a particular odorous substance, a fibrous substance, and much water; all which constituents are met with in the flesh of every animal, and nearly of the same quality; but with respect to their quantity, the different sorts of flesh greatly differ from each other. I have made my experiments on beef, veal, mutton, and pork; the results of which are, that the constituents were found in these sorts of flesh, on an average, to be in one pound (16 ounces Germ. civil weight)

1. Dry, nourishing jelly	2	to	$2\frac{1}{2}$	ounces
2. Fat - - - - - - -	$\frac{2}{10}$		$\frac{1}{4}$	
3. Fibrous substance -	2		$2\frac{1}{2}$	
4. Watery particles -	$11\frac{8}{10}$		$10\frac{3}{4}$	
	16		16	

Of

Of these constituents, the jelly which is extracted by water may be considered as the nutritive matter, the fibrous substance merely satiating the stomach; for which purpose, other substances may be employed. Bones, in their fresh state, freed from flesh, fat, and membranes, contain in one pound the following constituents.

1. Dry nourishing jelly and odorous matter	4	to $4\frac{1}{2}$ oz.	
2. Fat - - - - - - - - - - - - - - -	2	$2\frac{1}{2}$	
3. Bony substance - - - - - - - - -	8	$7\frac{1}{2}$	
4. Watery particles - - - - - - - - -	2	$2\frac{1}{2}$	

The jelly of bones perfectly resembles that of flesh, and the bony substance is very analogous to the fibrous substance of flesh; consequently, the bones seem merely to be an indurated flesh. Both parts differ from other animal substances by containing a peculiar odorous matter, from which the agreeable and refreshing smell of broth and roasted meat arises, and of which horn, the tendinous parts, the membranes and intestines are entirely deprived; and the jelly which may be procured from these substances is not so agreeable as that obtained from flesh and bones, but rather resembles glue. The jelly, the fat, and the odorous matter are separated by boiling flesh and bones in water, whereas the fibrous and bony matters remain undissolved in a tasteless state.

The decoctions of flesh and bones being cooled, the fat is separated on their surface, in a coagulable state, while the broth runs into a trembling jelly, capable of being cut into pieces. On evaporating this jelly to perfect dryness, it may be preserved many years, without danger of corruption; it readily dissolves in hot water, forming a liquid, very agreeable, and nourishing broth.

According to the above statement, one pound of fresh bones contains, on an average, double the quantity of dry nourishing jelly as one pound of fresh flesh without bones. But as flesh sold in the market contains at least 25lb. of bones in every 100 weight, which by the common boiling yields but a small portion of their virtues, the proportion of constituents in 1lb. of flesh with bones may be stated in the following manner.

1. Bones - - - -	4	ounces
2. Jelly - - - -	$1\frac{1}{2}$	
3. Fat - - - - - -	$\frac{3}{8}$	
4. Fibrous substance	$1\frac{1}{2}$	
5. Watery particles	$8\frac{1}{2}\frac{5}{8}$	
	16	

The

The proportion of jelly, therefore, extracted from flesh with bones, to that from bones only, is $= 3:8$ or $= 1:2\frac{2}{3}$, consequently, each pound of bones is $2\frac{2}{3}$ times more value than one pound of flesh, if compared with respect to their nutritive virtues. Bones that have been boiled with the flesh in the common way, retain the greatest part of their jelly, and yield, according to my method, at least three-fourths as much jelly and fat as fresh bones which have not been boiled. The method of separating the nutritive particles from bones is not expensive; and although the price of fresh bones be equal to that of flesh; would, notwithstanding, be advantageous. But when the bones of boiled or roasted meat are employed, which may be purchased at a very low price, the fat alone that is obtained by my method of boiling, will defray the expence of fuel, &c. and the jelly itself scarcely cost any thing. Those bones that are usually thrown away might be advantageously employed in making food for the poor, as well as for hospitals; and they will likewise afford, with the necessary additions, wholesome and agreeable soups for families; by which means the expences attending the purchase of meat will be considerably reduced. Large public institutions for supporting poor and helpless people may also derive great advantages from this manner of preparing nourishing jellies. Now, supposing that one institution consumes twenty oxen per month, this will, in the course of a year, amount to two hundred and forty; and supposing that each ox weighs 500lb. the whole mass of beef consumed in this period of time will average 120,000lb. which, at a low calculation, contains 25lb. of bones in every cwt. or 30,000lb. According to my experiments, 1lb. of bones, in their fresh state, contains 4 ounces of dry jelly and 1 ounce of fat; consequently, those 30,000lb. of bones contain 120,000 oz. or 7,500lb. of dry jelly, and 30,000 oz. or 1,875lb. of fat. But as 1lb. of such jelly, considered as nutritive matter, is equal to 8lb. of flesh, those 7,500lb. of dry jelly from bones are of the same value as 60,000lb. of flesh. Or, if we take the price of 1 lb. of beef to be equal to 2 groshen or about 3d. $\frac{1}{2}$, the value will be 5,000 rixdollars. And if we bring the fat obtained from the bones into compntation, at 6d. each lb. those 18,75 lb. of fat will be worth 312 rixdollars; consequently, such an institution might yearly gain the sum of 5,312 $\frac{1}{2}$ rixdollars; a diminution of expence which certainly deserves attention. The greatest advantage may arise from the introduction of such a jelly

to

to armies and field hospitals, particularly if it were prepared in great quantities, as it might be readily transported without any fear of corruption. Soldiers would always have a cheap, nourishing, and wholesome diet. Besieged places could in this manner more easily guard against the want of meat; and to the sick and wounded, it would afford a nutritive food. The jelly may be rendered more fit for preservation by salt, spices, onions, &c. and I again maintain, that there is not the least difference between the jelly of bones and that prepared from flesh.

Other advantages which the preparation of this jelly seems to promise, I shall more amply detail in a particular work which I intend to publish on this subject.

Analysis of the Broth from Bones, by M. Richard and Son.

THE experiments made on the analysis of the broth from bones were published by order of the Prefect of the Department des Bouches du Rhone, and are as follow.

Exp. 1. After we had procured five pounds four ounces of bones from oxen, and freed them from the cartilagineous and tendinous parts, we reduced them to a paste by strong trituration, which was boiled for about five hours with double its weight of water in an iron pot. The broth being filtrated and cooled, two pounds four ounces of jelly were obtained. The residuum was found to be four pounds, which being again subjected to decoction with double its quantity of water, yielded two pounds one ounce of jelly. The remaining bones weighed about four pounds; they were submitted to a new decoction, and the jelly thus obtained, weighed nine ounces. Lastly, we caused the pieces of bones that remained on the filtrum, to undergo another decoction, after they had been previously triturated, and we obtained eleven ounces more of jelly. Thus five pounds of bones produced near the same quantity of jelly.

Exp. 2. Having been thus assured that the bony substance furnished a quantity of jelly sufficient for being introduced with advantage into hospitals, we thought it proper to undertake a chemical examination of this sub-

stance. With this view, a portion of jelly was dissolved in a sufficient quantity of water on a sand bath, whereby broth of a greyish colour, of rather an unpleasant smell, but not disagreeable taste, was obtained. Added to the syrupus violarum, it had no action on the blue colour; and mixed with alkali, no effervescence was perceived.

Exp. 3. Being thus convinced that no acid was contained in the above broth, it remained to examine the nature of the different salts that might be present in it, which we could not doubt were the elements of the osseous texture, consisting of a saline calcareous substance and a gelatinous matter. The reagency which we employed for this purpose, were the acidulous oxalat of pot-ash dissolved in water, which being added to a portion of the broth, occasioned no precipitation: nitrate of mercury troubled the liquor but little, which however made us presume that it contained some muriatic salts. Ammonia did not produce any change, neither did a solution of fixed alkali. Concentrated acid had likewise no action on the broth, except that it became a little turbid by the addition of concentrated sulphuric acid. These experiments led us to conclude, that if there exists a saline substance, it cannot be phosphat of lime, which would have been discovered by the acidulous oxalat of pot-ash. Turbidness occasioned by the addition of sulphuric acid and of nitrate of mercury caused us, however, to suspect the presence of muriatic salts; to examine which, we undertook

Exp. 4. Part of the jelly submitted to distillation in a glass retort, to which was annexed a recipient, yielded an insipid inodorous phlegm; but the fire being increased, the matter puffed up and blackened; it exhaled a fetid smell. The interior of the retort was filled with thick white fumes, and a second phlegm, which was mostly alkaline, passed into the retort; soon after an oily matter, of an empyreumatic smell, appeared on the surface, and a slight saline crust was formed on the sides of the recipient, which being detached, proved to be carbonat of ammonia. The residuum remaining in the retort was a coaly matter, which being incinerated, appeared to be muriat of soda and phosphat of soda. The following proceeding confirmed our opinion. This saline matter was dissolved, evaporated, and crystallized; and the greatest part was muriat of soda, which appeared from its decrepitation, easy solubility, and the known taste of common salt. With respect

to

to the phosphat of soda, it perfectly dissolved in water; it changed the colour of syrupus violarum into green; and exposed to the fire, it puffed up and melted.

After these experiments, which were made with the most scrupulous attention, we think that the presence of phosphat of lime in the broth from bones is not at all to be apprehended. However, to leave nothing imperfect with regard to this analysis, we thought it proper to repeat an experiment of Professor Dispan, in order to be finally convinced, whether phosphat of lime be not combined with the broth from bones; but after the jelly had been dried and incinerated, we could not trace the least phosphat of lime. A curious circumstance to be observed is, that broth made from flesh contains phosphat of lime, which has been proved by Professor Dispan; and as this broth is universally found wholesome and nourishing, why should not the broth from bones have the same quality, even if some traces of phosphat of lime were discovered in it?

From this analysis we may justly conclude,

1. That bones contain a great quantity of jelly, sufficient for affording a wholesome and cheap food, and also a small quantity of muriat and of phosphat of soda.

2. That we need not apprehend the presence of phosphat of lime in the broth furnished by bones, because this saline substance cannot be separated from the bones by the common proceeding of decoction.

3. That five pounds of bones have only yielded the same quantity of jelly, though M. Cadet-de-Veaux, in his memoir on the alimentary economy, states, that he has extracted four ounces of jelly from one ounce of bones; which difference, however, much depends on the age of the animals from which the bones are taken, as young bones always yield a greater portion of jelly than old ones.

4. That even if we obtain only the same weight of jelly, great advantages might accrue to all ranks of society by this method of making broth from bones.

5. That all governments ought to encourage this discovery, by ordering such broths to be introduced into hospitals, and similar institutions.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the last Number of your Journal are some Remarks on the Cow-pock by Dr. Walker; who tells us, that when the variolous pock has acquired its full dimensions, it breaks into a number of distinct vesicles, while the cow-pock, or rather the congeries of vesicles of which it consists, remains united.

This is an inaccurate description of the variolous pustule, excited by inoculation. It does not break into a number of pustules. On the contrary, there is an eruption of secondary pustules near to the primary pustule, with which they become confluent; so that, instead of dividing into many parts, variolous pustules have a tendency to unite.

It is well known, that matter is most active when taken from a vaccine vesicle at an early period; it is also well known, that it will sometimes succeed when diluted, and even when mixed with blood: but I am sorry to find the necessary precautions in taking matter are so much neglected, that one practitioner has seen such matter used a thousand times.

Dr. Walker tells us, that pus taken from under a scab, and used in inoculation, will not produce any effect. Others tell us another tale; and if such practices are encouraged, we shall often hear of the same disastrous consequences as have already happened from the abuse of vaccination.

Dr. Walker tells us, that if the scab be removed, the pus wiped away, and the part underneath broken down with a lancet, it yields, in a smaller quantity, a fluid equally active with that which is taken from an uninterrupted pustule. If such hazardous experiments are ever made, the less that is said about them the better.

Dr. Walker asks, why we should say, *vaccine*, in imitation of the French? The fact is, the French say *vaccine* in imitation of the English. He says, we lay aside the term Cow-pock. This is a mistake; there is no term in more common use.

He considers *vacciola*, the word proposed by Dr. Stokes, the most happy word to be adopted as *a root*; from which all the terms used in the practice may be derived with more advantage. This *root* is *radically* improper. If admitted at all as a Latin word, it is a diminutive from vac-

ca,

-ca, and of the same import as vaccula, a little cow. Vaccine means something of or belonging to a cow; and is perfectly expressive of the object under consideration. Hence we say, vaccine matter, vaccine virus, the vaccine fluid; vaccine inoculation, the vaccine disease, vaccination; and to vaccinate.

Dr. Walker says, he is sorry to see me follow the French nomenclature in my Treatise. I have the pleasure to inform him, that I have not followed it. The French nomenclature consists of four words; two of them I used before the French used them; the other two I have never used at all.

It is true, I copied the French nomenclature; but at the same time declared it to be, "for the sake of those into whose hands any Treatise on this important branch of medical science, written in the French language, may happen to fall." Dr. Walker has also copied it; but this is by no means an approbation or disapprobation of the terms therein contained.

I thank your Correspondent, S. M. for his information concerning the London Dispensatory; and I think it a duty, on this occasion, to express a wish, that whenever any alterations are made in this work, public notice were given of the circumstance, in order to promote that uniformity in the composition of the medicines therein directed, which is so much to be desired.

Your Correspondent denies the merit of novelty to my observations on diarrhœa, but allows them the much greater merit of being practical and useful. Were every thing but what is novel excluded from your Journal, or any other medical publication whatever, the remainder would lie in a very small compass.

Your Correspondent wishes to know the cause of the great mortality which has lately prevailed among leeches. This, I apprehend, is not to be ascribed to any peculiarity in Thames water, but to the great heat of the summer. Leeches are animals to which the extremes of heat and cold are equally destructive. I have frequently known a similar mortality among them, when they were kept in the New River water.

The wholesale dealers in leeches keep them in spring water during the severity of the winter, because it is then warmer than river water. Possibly, it may be better than river water during the summer, because it is then colder; and particularly if the putrefaction in river water have

any

any share in producing the mortality in question. It is obvious, that a cool situation should be preferred in summer, and a warm one in winter.

The observations in your last Number, relative to eruptions after vaccination, by Dr. Adams, are interesting; as every thing must be that comes from his pen. Having seen him, when he was in London, I told him that it was the general opinion of those whom I had heard speak on the subject, that the eruptive cases he met with at Madeira were not cases of the cow-pock. I asked him whether he was still of opinion that they were cases of this kind, and he answered in the affirmative.

By a reference to those cases, which were published in the Medical and Physical Journal, for April, 1803, it appears, in some of them the eruption took place without any local sign of infection on the arm. This is so different from what has been observed in other parts of the world in general, that we must be excused for harbouring a certain degree of scepticism on the subject, till the point is cleared up, by the future experiments and observations of other practitioners, with other cow-pock matter.

This scepticism is rather increased than diminished by Dr. Adams's late communication, in which we are informed, that the same event took place in a patient who had the itch. No local effect was produced; and Dr. Adams, in this as well as the other cases, might well be astonished at the appearance of a great number of vesicles on other parts of the body; but it by no means follows, that they were of the vaccine kind.

While we are sceptical with regard to the nature of the eruptions which have occurred in the practice of Dr. Adams, we cannot be hurt at his being sceptical with regard to the eruptions which have occurred in our practice. He suspects, that some of the eruptions which appear at a remote period after vaccination, which the zealots on one side call the small-pox, and those on the other the chicken-pox, are nothing but vaccine vesicles.

I have seen many such cases, and have never seen one of them bear a resemblance to a vaccine vesicle. I have known matter taken from such eruptions produce the chicken-pox. Dr. Willan has also seen several of these cases, and pronounced them to be the chicken-pox; and Dr. Adams will not call Dr. Willan a zealot.

I know no reason to suppose, that eruptions which appear at *a remote period* are owing to vaccine inoculation; nor

nor do I know of any new species of vesicular eruption which has lately appeared. Instead, therefore, of our supposed cases of chicken-pox being the cow-pock, I am inclined to think, Dr. Adams's supposed cases of cow-pox were the chicken-pox.

Dr. Adams wishes we were all more attentive to mark phænomena, than hastily to get through difficulties. In this sentiment every friend of science must coincide. But when he tells us, that we ought as much as possible to encourage the objections of the captious, it may be necessary to observe, that after the rigorous ordeal which vaccination has now undergone, such objections can only serve to keep the mind of the public in a continual state of alarm.

He allows, that the objections hitherto started are too light to be taken into account, when compared with the contrary evidence. This being the case, nothing should be encouraged that tends to retard the progress of vaccination, and to prevent the present age from enjoying the full advantage of the practice.

Too much encouragement is given to such objections; too much encouragement is given to unauthenticated reports; and too many periodical publications are ready to receive and circulate any lie that is fabricated against vaccination. One of these lately refused admission to a letter from Dr. Marshall, complaining of the iliberallity of an anonymous attack on the practice and himself; and pledging himself to refute the charges, if the author of the attack would publish his name, and specify the names of the parties in whom the pretended failures had occurred. Admission was also refused to a respectful representation of the impropriety of admitting anonymous attacks of this kind, and anonymous reports on so important a subject.

But admission was readily granted to a report of an unfavourable kind; a report more congenial with the part espoused by the editors of that publication. This report is concerning a child, who lately died of the small-pox after being supposed to have had the cow-pock. Mr. Faithhorn of Kensington, it is there said, can attest the fact. I have enquired of Mr. Faithhorn, and the following certificate will prove, that as far as his testimony is concerned, the report is destitute of foundation.

"It having been stated, that a child of Mr. Meredith, of Kensington, who lately died of the small-pox, had been inoculated for the cow-pock, and regularly gone through the

the disease, and that I could testify the truth of this assertion; I hereby declare, that I never saw the child when under vaccination; and, that, from the account given to me by Mrs. Meredith, I am perfectly convinced he never had the cow-pock.

"Mr. Wilson, surgeon, of Shadwell, and Mr. Cockle, surgeon, of High Holborn, saw the child with me; and after making every possible enquiry of the parents, were also of opinion that the child never had the cow-pock.

Kensington, Sept. 21, 1804. JOHN FAITHHORN."

In the account published, it is stated that there was a black scab after the pock. This is contrary to the account given by the mother to Mr. Faithhorn, Mr. Cockle, and Mr. Wilson, who first enquired into the subject. She afterwards gave a different account.

It appears, however, even by her confession, that the child was inoculated on Monday, and that Mr. Collurne never saw him but once after, while supposed to be under vaccination, which was on the Thursday following.

The report states, that Mr. Howard of Pimlico, had a share in inoculating the child. This is likewise false; that gentleman never saw the child when under inoculation; and was not in the neighbourhood of London at the time.

Mr. Merriman, another of the pretended witnesses, knows nothing of the matter. The name of Mr. Wilson of Windmill Street, is probably put down by mistake, instead of Mr. Wilson of Shadwell.

Finding the report so incorrect, I have not thought it worth while to call on all the gentlemen whose names are mentioned. I have, however made enquiries of Mr. Collurne, and the mother of the child, and have received the following information:

The child was inoculated by Mr. Collurne, who saw him again three days after. If at that time he formed any decisive opinion respecting the success of inoculation, it certainly was premature; but this will by no means justify an assertion, that the child had the cow-pock.

According to the mother's account, a pustule rose on each arm, but was rubbed of within a few days. It is, therefore, the more likely to have been of the spurious kind; which consists of only one cell, and is more elevated than the genuine cow-pock; and, on both these accounts, is more frequently ruptured. I am, &c.

New Street, Hanover Square. JOHN RING.

Botanical Description of British Plants.

[Continued from pp. 220—232.]

40. Bunium. *B. flexuosum.*

Ang. Earth, kipper, pig, hawk or fur-nut; earth chesnut; lesser pig-nut.

Gen. Desc. Bloss. uniform: umbel crowded: Styles bent back, deciduous: seeds rather cylindrical, scored, thicker towards the end.

Spec. Desc. *Involucr.* from one to three leaves, deciduous. *Stem* leafless at the base, tapering downwards, zigzag. *Styles* permanent. *Root* tuberous, *Stem* smooth, scored, but little branched. Leaves doubly winged; segm. slender, tapering. Involucr. generally wanting. *Umbel* eight to twelve spokes. Umbellule sixteen sp. *Styles* at first close, afterwards straddling, never bent back. *Flowers* white. *Meadows, pastures, woods.* Bloss. May, June.

Use. These roots eaten either raw, or boiled, or roasted, are scarcely inferior to chesnuts, and would be an agreeable addition to our winter deserts.

41. Conium. *C. maculatum. Cicuta major. Cicutaria vulgaris.*

Ang. Hemlock, common hemlock. Kex.

Gen. Desc. Invocellum going half-way round, of about three leaves. Fruit egg-shaped, bulging, ribs compressed, waved before the fruit is ripe.

Spes. Desc. *Seeds* without prickles. *Stem* branched, smooth, shining, spotted and streaked with blackish purple. *Involucel.* one leaf, div. into three and four; *segm.* at the edges white and membraneous. *Lower leaves* dark green and shining. *Outer petals* largest. *Flowers* white. *Hedges, orchards, dunghills, rubbish, and cultivated ground.* Bloss. June, July.

Use. This plant has a peculiar faint fetid smell, and a slight aromatic and somewhat nauseous taste. That the plant is poisonous there can be no doubt, and numerous instances are recorded by various authors of its deleterious effects; but it seems probable, from some circumstances, that it is less powerfully so than was formerly imagined. That the root does not possess any noxious power whatever, several recent intances of its being repeatedly and largely eaten with impunity, have unequivocally been shewn. *Phil. Trans.* xix. p. 634. *Curtis Flor. Lond. Murray Ap. Med.* v. 1, p. 216. And Mr. Lane informed Mr. Curtis, that

that from his own experience he was of opinion "the roots might be cultivated in gardens, and either eaten raw like celery, or boiled as parsnips and carrots." Vinegar has been found the most useful in obviating the effects of the poison of hemlock, and by macerating or boiling the plant in vinegar it becomes totally inert.—*Lindenstolpe de venenis.* For the principal symptoms produced by immoderate doses of hemlock, see *Haller, Murray, &c.*—This was generally employed by the Greek and Arabian physicians as an external remedy for tumours, ulcers, and cutaneous eruptions; it was also thought to have the peculiar power "frangere stimulum venereum," et "incrementa mammarum et testium cohibere:" which seems the more remarkable, as Stoerck, Bergius, and others, recommend its internal use in complaints of a contrary nature, and adduce proofs of its aphrodisiacal powers. *Berg. Mat. Med.* p. 195. Baron Stoerck first brought it into repute as a medicine of extraordinary efficacy, and Bergius considers its *virtus* to be *narcotica, resolvens, suppurationem promovens diurctica*, and recommends its use in various disorders; others, however, have condemned it, and the value of this medicine seems still to be undetermined. There are no testimonies in this country, like the facts adduced by Stoerck, of inveterate schirruses, cancers, ulcers, &c. hitherto deemed irremediable, having been cured by it; but it has been found that several disorders, which had resisted other medicines, have yielded to hemlock, and that some, if not cancerous, at least of that tendency, have been relieved by it. In chronic rheumatisms, glandular swellings, &c. &c. and in the chin-cough, it is now generally employed. Externally, the leaves of hemlock have been variously applied with advantage to ulcers, indurated tumours, and gangrenes.—*Woodville.* The difficulty of preparing the extract, and its great uncertainty, render the use of it dangerous and doubtful. Dr. Withering says, that for some years he has laid it aside, and prescribed only the powder of the dried leaves, for which he recommends the following method of preparation: Let the leaves be gathered about the end of June, when the plant is in flower. Pick off the little leaves and throw away the leaf-stalks. Dry these selected little-leaves in a hot sun, or on a tin dripping-pan, or a pewter dish, before the fire. Preserve them in bags made of strong brown paper, or powder them, and keep the powder in glass vials in a drawer, or something that will exclude the light; for the light soon dissipates the fine green colour, and with its

its colour the medicine loses its efficacy. From fifteen to twenty-five grains of this powder may be taken twice or thrice a day. "I have found it peculiarly useful in *chronic rheumatisms*, and also in many of those diseases that are usually supposed to arise from acrimony. The nature of this book does not allow of minute details of the virtue of plants, but I can assure the medical practitioner that it is well worth his attention.—*Withering, l. c.* Mrs. Y. in Ireland, cured a poor woman of a cancer in the breast by hemlock pills taken inwardly, with stupes of the same plant.—*H. B.* Baron Stoerck used an *extract from the fresh root in spring*, in cancerous and scrophulous complaints.—*Lightfoot.*

42. Peucedanum. *P. officinale.*

Ang. Sulphur-wort. Hog's fennel. Harestrong.

Gen. Desc. Involucr. very short. Fruit, eliptical, slightly ridged, compressed, bordered.

Spec. Desc. Leaves, five times divided into three, thread strap shaped. *Petals*, yellowish. *Salt marshes.* Bloss. June, July.

Use. The roots have a strong fetid smell, and an acrid, bitterish, unctuous taste. When wounded in the spring, they yield a considerable quantity of yellow juice, which dries into a gummy resin, and retains the strong scent of the root. Its virtues have not yet been ascertained with precision.—*Withering.*

43. Crithmum. *C. maritimum. C. siculum.*

Ang. Rock samphire.

Gen. Desc. Florets equal. Fruit oval, compressed.

Spec. Desc. Leafits strap spear-shaped, fleshy. *Flowers*, white. *Sea coast.* Bloss. August.

Use. On the sea coast it is gathered for sale, being much used as a pickle: the poor people there eat it also as a pot-herb. Cows and sheep feed eagerly, and are said to grow fat upon it.—*Penn.*

44. Heracleum. *H. sphondyllium.*

Ang. Cow parsnip. Madnep. Hog-weed. Parsnip hog-weed.

Gen. Desc. Involucr. shedding. Bloss. irreg. Petals bent inwards, notched. Seeds compressed, leaf like, smooth, encompassed by a membranaceous border.

Spec. Desc. Leafits, wing-cleft, even. *Flowers*, radiated. *Leaf stalks*, at the base like a bag, scored, membranaceous, woolly at the edges. *Stem-leaves*, winged, hairy; *leafits*, three pair, jagged, indented; odd one, three-cleft. *Outer*

florets

florets radiated, the *central* nearly equal. *Flowers* white. *Seeds* with three ridges on each side. *Hedges, meadows, pastures.* Bloss. July.

Use. In Poland and Lithuania the poor prepare a liquor from the leaves and seeds of this plant, which, after undergoing a fermentation, is used as a beverage like ale. The stalks, peeled, are eaten by the Kamschatdales. The Russians prepare from this plant an eatable, which they esteem a great delicacy: they pick off the leaf-stalks of the root-leaves, peel them, and hang them in the sun to dry a little; they then tie them in little bundles, and hang them up again till they become yellow; in this state they are put into bags, and a mealy substance, like sugar, forms upon the surface of them; this is carefully shaken off, and served as a treat to the guests. They likewise distill an ardent spirit from it.—*Gmelin.* The peelings of the stalks are acrid. The leaves are a favourite food of rabbits, hogs, and asses: cows, goats, and sheep eat them; horses are not fond of them.—*Withering.* This plant has been found useful in *epilepsy.—H. B.*

45. Ligusticum. *L. Scoticum.*

Ang. Scottish lovage. Sea parsley.

Gen. Desc. Bloss. equal. Petals rolled inwards, entire. Fruit oblong, tapering at each end, five ridges on each side.

Spec. Desc. Leaves doubly three-fold, glossy underneath. *Little leaves* oblong, wedge shaped, entire below, above serrated irregularly. *Rocks by the sea side.* Bloss. July.

Use. The root of this plant is reckoned a good carminative; an infusion of the leaves is said to be a good *purge for calves.* It is much valued in the isle of Sky, and is besides used as food, eaten either as sallad, or boiled as greens.—*Pennant.* Horses, sheep, and goats eat it: cows refuse it.—*Withering.*

46. Angelica. *A. archangelica. A. sativa.*

Ang. Garden angelica.

Gen. Desc. Bloss. equal, pet. bent inwards: styles reflected; fruit roundish.

Spec. Desc. Leaves winged; *leafits* unequally serrated, odd one three-lobed; the serratures broad and of a lopped appearance at the base: Involucell. sometimes longer than umbellule. *Broadmoore, near Birmingham.* Bloss. Sept.

Use. The medical character of angelica has made it an object of cultivation to the English gardener for more than two centuries. The stalk, leaves, seeds, but more particularly

larly the root, have a fragrant agreeable smell and a bitterish pungent taste: on being chewed they are at first sweet, afterwards acrid, and leave a glowing heat in the mouth. "The fresh root, wounded early in spring, yields from the inner part of the bark an unctuous yellowish odorous juice, which gently exsiccated retains its fragrance, and proves an elegant aromatic gummy resin."—*Lewis.* Linnæus says, that the Laplanders entertain a very high opinion of the utility of this plant, as food and medicine, which is natural, as few aromatic plants inhabit the polar regions. Bergius thus enumerates its virtues: *Alexiteria, stomachica, sudorifera, carminativa;* and it has been recommended in female diseases; yet though it must be allowed to possess aromatic, and what are called carminative powers, it is in these qualities surpassed by other simples, and therefore seldom employed in the present practice.—*Woodville.* It is commonly used for a confection or sweetmeat; and employed in some distilled waters.

47. Angelica. *A. sylvestris.*

Ang. Wild angelica.

Gen. Desc. As above.

Spec. Desc. Leafits equal, egg-spear shaped, serrated finely and regularly. *Spokes* to forty; *Fruit stalks* to eighty. *Involucr.* generally 0. Involucel. permanent. *Bloss.* white, tinged with red. *Seeds,* border membranaceous, three ridges on the outer side. *Marshy woods and hedges.* Bloss. June, July.

Use. It is warm, acrid, bitter, and aromatic, possessing all the qualities of that cultivated in our gardens *(see Prec. Art.);* but as the latter possesses these properties in a higher degree, this has been long neglected. Cows, goats, and swine eat it; horses refuse it.—*Withering.*

48 Sium. *S. nodiflorum.*

Ang. Creeping water parsnip, or skerret.

Gen. Desc. Involucr. many leaved. Petals heart-shaped, Styles bent back; fruit roundish.

Spec. Desc. Leaves winged; *leafits,* tooth-serrated; *umbels* lateral, opposite the leaves. *Flowers,* white. *Stem* and *branches,* trailing or floating on the water. Involucr. deciduous. *Rivers and ditches.* Bloss. July, Aug.

Use. The efficacy of this plant is thus attested by Dr. Withering: "A young lady, six years old, was cured of an obstinate cutaneous disease by taking three large spoonfuls of the juice twice a day." Dr. W. has repeatedly given to adults three or four ounces every morning in similar

similar complaints with the greatest advantage; it is not nauseous, he adds, and children take it readily if mixed with milk. In the doses of it given by him, it affected not either the stomach, the bowels, or the head.—*Withering.* It has lately been admitted into the Mat. Med. of the London College, in the character of an *antiscorbutic,* or rather as a corrector of acrid humours, especially when manifested by cutaneous eruptions, and tumours in the lymphatic system, on the testimony of Beiric and Ray.—*Woodville.*

49. ŒNANTHE. *Œ. crocata. Filipendula cicutæ facie. Ang.* Hemlock-dropwort. Dead tongue.

Gen. Desc. Florets of different shapes, the central fl. sitting, barren. Fruit with a cork-like coat, oblong, scored; crowned by permanent styles and calyx.

Spec. Desc. Leaves, many-cleft, blunt, nearly equal, some winged, some doubly winged. *Little leaves,* wedge shaped, smooth, streaked, jagged. *Petals* white, acute, bent inwards. *Involucr.* wanting, or of five strap-shaped leafits, readily falling off. *Umbellule,* nearly globular. *Gen. Bloss.* not very unequal. *Watery places, banks of rivers and ditches.* BLOSS. June, July.

Use. An infusion of the leaves, or three tea spoonsfull of the juice of the root taken every morning, effected a cure in a very obstinate *cutaneous disease*; but it was not without occasioning very great disturbances in the constitution. *See Dr. Pulteney's letter, Phil. Trans. lxii. p.* 469. The whole of this plant is *poisonous;* and Dr. Pulteney remarks, that of all the vegetable poisons produced in Great Britain, the root of this plant is the most virulent. Many instances of its fatal effects are recorded; for which see *Phil. Tr. ib. and vol. i. p.* 856. *Gent. Mag. July,* 1747, *Mar.* 1755, *Sept.* 1758. It is made use of by the country people in Westmoreland as an application, in the form of a poultice, to the ulcer, which forms in the fore part of the cleft of the hoof in horned cattle, and is called *the foul.*—*Withering.* This plant has been sometimes mistaken for celery, to which it bears some resemblance; but it is a *terrible poison,* and even the smell of it is deleterious: a vomit is the best remedy for those who have eaten of it. A spoonful of the juice given to a dog, rendered him sick and stupid: a goat eat it with impunity.—*Lightfoot.* For instances of its deleterious effects, see Dr. Woodville, Sir William Watson, Phil. Trans. vol. xliv. Allen Synop. Med. &c.

50. Phellandrium. *P. aquaticum. Cicutaria palustris. Fœniculum aquaticum.*

Ang. Water hemlock. Horsebane.

Gen. Desc. Central florets smallest; fruit egg shaped, smooth; crowned with the pistil and the calyx.

Spec. Desc. Ramifications of the leaves straddling. *Stem* very thick. *Leaves,* under water long, hair like. *Petals,* white. *Rivers, ditches, pools.* Bloss. June, July.

Use. The medicinal quality of this plant now rests chiefly on the testimonies of Erstingius and Lange, by whom various cases of its successful use are published, especially in *wounds* and inveterate *ulcers* of different kinds, and even in *cancers;* also in *phthisis pulmonalis, asthma, dyspepsia, intermittent fevers, &c.* About two scrs. of the seed, two or three times a day, was the ordinary dose given. Boerhaave speaks highly of its discutient power in all kinds of tumours. *Hist. Plant. Hort. Ludg. Bat.* 1. *p* 94. The medicinal qualities of these seeds are not satisfactorily ascertained, but they appear to be well deserving of further investigation.—*Woodville.* The seeds are recommended in intermittents; and are said to be *diuretic, antiseptic,* and *expectorant:* dose one to three drachms daily.—*Dr. Lange.* The leaves are sometimes added to *discutient* cataplasms. It is commonly esteemed a fatal poison to horses, occasioning them to become paralytic; but this effect is owing to a certain insect *(the curculis paraplecticus)* which generally inhabits within the stems. The usual *antidote* is pig-dung. In winter, the roots and stem, dissected by the weather, afford a very curious skeleton or net-work. Horses, sheep, and goats eat it; swine are not fond of it; cows refuse it.—*Withering.*

51. Cicuta. *C. virosa. C. aquatica. Sium alterum.*

Ang. Long leaved water hemlock. Water cowbane.

Gen. Desc. Fruit nearly egg shaped, ribbed.

Spec. Desc. Leaves, winged; *leafits,* spear shaped, in threes, serratures white at the point. *Stem,* four feet high, reddish below. *Fruit-stalks,* sheathed at the base. *Umbel.* expanding, red at the base. *Styles,* upright, white, in the fruit straggling. *Fruit,* compressed, even, lopped. *Petals,* yellow green. *Pools.* Bloss. July, Aug.

Use. As an internal medicine this is universally superseded by the common hemlock; but externally employed in the way of poultice, it is said to afford relief in various fixed pains, especially those of the *rheumatic* and *arthritic* kind.

kind. In its dried state, Bergius tells us, it may be taken in considerable quantities without producing any bad effect; but the root, when fresh, is extremely deleterious. The symptoms produced upon some children, who ate of it for parsnip root, were intoxication, vertigo, great heat and pain in the stomach, convulsions, and even epilepsy, distortions of the eyes, vomiting or retching, discharge of blood from the ears, swelling of the abdomen, hiccup, spasms, &c. In a man, delirium, with constant heat of the stomach, and unextinguishable thirst, were of long continuance, and followed by an erysipelatous tumour in the neck. See *Eph. Nat. Cur. Cent.* 10. Obs. 58. p. 355. The timely administration of an emetic is the only remedy.—*Woodville.* It is one of the rankest of our vegetable poisons. Numerous instances are recorded of its fatality to the human species in a treatise upon it by *Wepfer* and by *Haller,* as well as in the *Phil. Trans. abr.* x. Early in the spring, when it grows in the water, cows often eat it, and are killed by it; but as the summer advances, its scent becomes stronger, and warns them carefully to avoid it. But, though it is a certain and fatal poison to horned cattle, goats devour it greedily and with impunity. Horses and sheep also eat it with safety.—*Withering.*

52. ÆTHUSA. *Æ. cynapium.*

Ang. Fool's parsley, or cicely. Lesser hemlock.

Gen. Desc. Involucell. reaching half way round, three-leaved, bent downwards; fruit nearly globular, deeply furrowed.

Spec. Desc. Leaves, all alike, doubly winged, smooth, glossy dark green; *leafits* div. into segm. subdiv. into three or five. *Stem.* one and a half to two feet high, branched. *Umbel.* often eighteen sp. *Flowers,* whitish. *Corn fields, kitchen gardens.* BLOSS. August, Sept.

Use. From the resemblance of this plant to common parsley, it has often been mistaken for the latter; and when eaten, it occasions sickness. It is noxious to geese. Horses, cows, sheep, goats, and swine eat it.—*Withering.*

53. ÆTHUSA. *Æ. meum. Athamanta meum. Ligusticum meum. Seseli meum.*

Ang. Spignel. Spicknel. Men. Bald or bawd money. Spignel cicely.

Gen. Desc. As above.

Spec. Desc. Leaves divided into many bristle-shaped segments; *involucr.* 1; leaf, sometimes none; *fruit,* egg oblong

long, tapering at each end. *Petals*, white. *Mountainous pastures*. Bloss. May.

Use. Linnæus says, that the radical fibres of this plant, form the basis of the calculus ægagropila, but though I have examined several of these balls, I never found it so. *Mr. Gough*. The roots and seeds are aromatic and acrid. They have been used as stomachics and carminatives; sometimes they are given to cure tertians; and there is no doubt but they will often answer as well as pepper, and other acrid aromatics.—*Withering*.

54. Coriandrum. *C. sativum. C. majus. C. vulgare. Ang.* Common coriander.

Gen. Desc. Bloss. radiated; petals bent inwards, notched at the end; involucr. one leaf; involucell. reaching half way round; fruit globular, smooth.

Spec. Desc. *Fruit* globular. Whole plant smooth. *Leaves* cut into very slender strap shaped segments. *Proper calyx* five leaves, permanent. *Styles* permanent, reflected. *Outer florets* of umbellules barren; petals larger, expanding, radiated; *central florets* fertile; *petals* equal, bent inwards. *Flowers* whitish. *Seeds* two, united, so as to form a globe. *Corn-fields, road-sides, dunghills.* Bloss. June, July.

Use. The leaves and every part of the plant, when fresh, have a very offensive odour, like bugs; but upon being dried, the seeds have a tolerably grateful smell, and their taste is moderately warm and slightly pungent. These seeds, it is asserted by Dioscorides, if taken in any considerable quantity, produce deleterious effects; and in some parts of Spain and of Egypt, where the fresh herb is eaten as a cordial, instances of fatuity, lethargy, &c. are observed to occur very frequently,—*Hoffman*; but these properties seem to have been unjustly ascribed to the coriander; and Dr. Withering says, that though they have been considered as suspicious, if not deleterious, he has known six drachms of them taken at once without any remarkable effect. These seeds, like those of most of the umbelliferous plants, possess a stomachic and carminative power; but they are principally of use, according to Dr. Cullen, "as correctors of the bitter infusion and the preparations of senna, nothing so powerfully covering its dis agreable odor and taste, and it being equally efficacious in obviating the griping that senna is very ready to produce." *Woodville; Cullen Mat. Med. ii. p.* 153. The seeds in-

crusted with sugar are sold by confectioners, under the name of coriander comfits.

55. Scandix. *S. odorata.*

Ang. Sweet Cicely. Shepherd's needle. Great sweet chervil. Sweet fern.

Gen. Desc. Bloss. radiated; central florets frequently male; petals notched at the end; styles permanent; fruit awl-shaped.

Spec. Desc. *Seeds* furrowed, angular, longer than the umbellules, of a sweet and agreeable taste. *Leaves* trebly winged; *little leaves* with winged clefts; *segments* deeply and sharply serrated. *Flowers* white. *Whole plant* of an aromatic scent. *Orchards and waste places, but always near houses.* Bloss. June.

Use. The seeds of this plant are very commonly used in the north of England for polishing and perfuming oak floors and furniture.—*Woodward.*

56. Scandix. *S. cerefolium.*

Ang. Common chervil. Chervil shepherd's needle.

Gen. Desc. *As above.*

Spec. Desc. *Seeds* glossy, cylindrical, beaked. *Umbels* generally lateral, nearly sitting. *Leaves* exceedingly delicate. *Spokes* woolly, four, sometimes three or five; of umbellule ten and twelve. *Involucr.* leaf strap shaped. *Bloss.* white. *Hedges.* Bloss. May.

Use. This plant is slightly *aromatic* and *aperient.* It is frequently cultivated in our gardens as a pot herb, and is used in sallads. Cows are extremely fond of it; sheep and goats eat it; horses refuse it.—*Withering.*

57. Chærophyllum. *C. sylvestre. Myrrhis.*

Ang. Wild Cicely. Cow weed. Cow parsley. Cow weed chervil.

Gen. Desc. *Invollucell.* reflected, concave; petals heart shaped, bent inwards; fruit shining, generally smooth, oblong.

Spec. Desc. *Stem* smoothish, scored, swoln at the knots, woolly. *Central florets* of umbellules often barren. *Flowers* white. *Hedges, orchards, pastures.* Bloss. May, June.

Use. In some parts of the kingdom, in times of scarcity, this plant is eaten as a pot-herb.—*Curtis.* The roots have sometimes been eaten as parsneps, but they have been found poisonous. The umbels afford an indifferent yellow dye; the leaves and stem a beautiful green. Its presence indicates a fruitful soil. Neither horses, sheep, goats, nor swine are fond of it; rabbits eat it greedily; and cows are

very

very fond of it, so much so, that when, as often happens about Dudley, a pasture is over-run with it, cows are turned in to eat it up.—*Withering.*

58. Imperatoria. *I. ostruthium. Astrantia vulgaris. Magistrantia.*

Ang. Common masterwort.

Gen. Desc. Petals bent inwards, notched at the end; seeds compressed with a broad membranaceous border, and three ridges on the back.

Spec. Desc. But one species has been described. *Banks of the Clyde.* Bloss. June.

Use. The root has a fragrant smell and a bitterish pungent taste, leaving for some time a glowing warmth in the mouth. This plant was formerly, as its name imports, thought to be of singular efficacy, and was preferred to most of the other aromatics, for its alexipharmic and sudorific powers. In some diseases it was employed with so much success as to be distinguished by the name of "divinum remedium."—*Hoffman.* At present, however, this root being considered merely as an aromatic, is superseded by many of that class, of superior character; half a drachm of the root in substance, and one drachm of it in infusion, is the dose directed.—*Woodville.* The root is warm and aromatic; it is a *sudorific*, a *diuretic*, and a *sialogogue*; recommended in *dropsy* and *debilities* of the stomach and bowels; and an infusion of it in wine, is said to have cured *quartans*, which had resisted the bark.—*Dr. Stokes.* When chewed it excites a copious flow of saliva, exciting a warm and not disagreable sensation in the gums, and frequently curing the rheumatic *tooth-ache.*—*Withering.* It should be dug up in winter, and a strong infusion made in wine.—*Lightfoot.*

59. Pastinaca. *P. sativa.*

Ang. Wild parsnep. *The* garden parsnep *is a variety, altered only by culture.*

Gen. Desc. Petals rolled inwards, entire; seeds eliptical, compressed, leaf-like, smooth; border thin, narrow.

Spec. Desc. Leaves simply winged. *Stem* three or four feet high, membranaceous at the corners. *Involucr.* 0. *Umbel spokes* six to twelve; *Umbellule spokes* short, numerous. *Involucellum* sometimes one leaf. *Flowers* yellow. *Borders of ploughed fields, in lime-stone.* Bloss. June, July.

Use. The roots of this plant are sweeter than carrots, and, when improved by garden culture, are an excellent vegetable for the table, and much used by those who ab-

stain from animal food in Lent; they are highly nutritious. In the north of Ireland they are brewed instead of malt, with hops, and fermented with yeast; the liquor thus obtained is agreeable. The seeds contain an essential oil; and will often cure intermittent fevers. Hogs are fond of the roots, and quickly grow fat upon them.—*Withering.*

[To be continued.]

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN your Review of my work on the Cortex Salicis Latifolia, vol. x, p. 374, Medical and Physical Journal, you say, "The virtues of the *various species* of *willow bark* have *long* been *ascertained,* and *fully* established, but the *salix* has not been formally received into our Materia Medica."

These remarks, indeed, are the more extraordinary, as neither Mr. Stone, Mr. James, Mr. White, nor myself, have been aware, how, or by whom, we have been anticipated in our labours.

The former gentleman, Mr. Stone,* wrote on the *salix alba,* or common white willow, which Mr. James† found, as well as some others of its species, on repeated trials, to be superior to the *salix latif.* and it does not yet appear, that he has been anticipated by any English authors whatever on this subject; although *Classius,* and *Gunzius,* two foreign physicians, are said to have written on the bark of the willow; but not being able to procure their Treatises, Mr. James, and myself, are quite at a loss, what, or how many species of the willow they have described. This leads me to hope, that by your friendly assistance, we may be enabled to ascertain the truth of what you have asserted, viz. "That the virtues of the *various species* of *willow bark* have *long* been *ascertained,* and fully *established.*

I have remarked in my work,‡ that Evelyn, in his Discourse

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* Vide Philosophical Transactions, vol. liii. p. 197.

† Observations on the Bark of a particular Species of Willow, by S. James.

‡ Experiments and Observations on the Cortex Salicis Latifolia, p. 24, et seq.

course on Forest Trees, has named thirty-one varieties of the *salix*, though he has described but fifteen; Steph. Robson in his British Flora, eighteen; and Withering in the last edition of his Arrangement of British Plants,* published by his son, has noticed and described twenty-two species; hence there remains nine more, to make up the number of thirty-one varieties of this *genus*; but how, or by what authors the *virtues*, even of the twenty-two *varieties*, have been *ascertained*, and *fully established*, with me is a doubt, that you will I trust admit, requires explanation.

It is farther asserted by you, in your *Critique*, that you have no doubt, "That the willow bark (by which I suppose you mean the *salix latifolia* in general) properly administered, will cure intermittents, will have a salutary effect in supporting the strength of the constitution under copious suppurations, and other debilitating circumstances, &c." Nevertheless, you question the superiority I apprehend it possesses over the *cinchona*; which difference of opinion can only be thus accounted for. I have considered it (the salix) in a general point of view, and you in the abstract, by your supposing the *cinchona* to be always *genuine*; which is not the case. My reasons for preferring the *salix* to the *cinchona* are, that in *decoction* it is equal, if not superior to the latter, even when *genuine*, and given in *powder*; as it is well known, that in this form it is not only apt to sit uneasy on the stomach, often producing nausea and vomiting, but when retained, brings on troublesome diarrhœa, whereby its good effects become abortive; whereas the former, by proving much more agreeable in a liquid form, *rarely*, if *ever*, disagrees with the patient, and is by no means apt to run off by the intestines,

Whether the Cinchona administered to the patients who were the subjects of my Cases, might or might not be "*genuine or good*," is not for either of us to determine; more especially, as it was employed by other practitioners prior to their entering on the use of *my salix decoction*, (in powder). Though this latter mode of using it is generally deemed more efficacious than any other, yet the *salix* was universally preferred, for its being more agreeable to their tastes, and by sitting more easy on the stomach; which, in the form of decoction, must be allowed to be of no small advantage; for when we reflect on the already named inconveniencies

* Arrangement of British Plants, vol. ii. p. 44, et seq.

conveniencies attendant on the use of the powder, even of *genuine and good* cinchona, when obliged to be employed in large and repeated doses, in order to produce decisive effects in formidable diseases, inconveniencies which do not attach to the use of the salix; it will certainly appear to be of no small importance to it, as a medicine.

If I have appeared to undervalue the *bitterness* contained in the different species of the cinchona, which I am not conscious of having done, it is on the following principles, viz. That vegetables possessing *bitterness* are accounted *tonic*, and even have been considered as *antiseptics*, though not possessing *tan;* the latter principle having been proved by my experiments* to resist putrefaction of animal substances in preference to *bitterness.* The same terms have been applied to such vegetables as contain *tan*, and bitterness,† though with more propriety than in the former case. Be this as it may, it seems pretty generally admitted, that vegetables not possessing tan have fallen short of the effects of those which contained it; e. g. cham. absinthium gentian cort. aurant. amar. angustura, quassia, &c. are inferior to the cinchona, as *febrifuges*, while the *salix latifolia*, and some others of a similar quality, appear even *sine amaritiè*, to excel the cinchona.

How far bitterness may be found *essentially* necessary towards the perfection of vegetable tonics, as *febrifuges*, is not for me to determine. In the cases of intermittents and typhus, in which I have administered the *salix*, it did not appear defective from a want of this property; nor, for any thing we know, is it *essential* to its effects in preventing the return of the paroxysms of febrile diseases, whatever it may be in some diseases of the chylopoetic viscera, in which bitters combined with *tonics* are known to prove salutary. Nor would it be fair to determine on its effects *comparatively* with the *cinchona*, by combining it with *bitterness*, or any other principle that might influence its effects as a medicine, more especially where the cinchona is trusted to as the sheet anchor.‡

All

* Vide my Experiments and Observations on the Salix Latifolia.

† Intense bitterness in vegetables possessing *tan*, is not perhaps so common as in those that contain little or none. The *salix pentandria*, or bay leaved willow bark, is however found to be very similar to the cort. flav. as it possesses *tan*, and bitterness nearly equal to it.

‡ This is to be understood in cases of intermittents, fevers, gangrene, weakening discharges from abscesses, &c. and even in those fevers termed putrid or malignant.

All *formulæ* of the Peruvian bark, such as decoction, tincture, extract, powder, &c. notwithstanding the experience of their inefficacy, when given *singly*, in some diseases, have been found, when combined with intense bitters, chalybeates, and other powerful auxillaries, to be attended with uncommon success. This has induced me to suspect its *real* utility in such cases, more especially as it cannot be denied but that the same ingredients, *sine cortice*, have been known to produce similar effects.

I advance not these remarks from caprice, or prejudice against the cinchona, *(or its admirers)*; they are adduced as, at least, presumptive proofs of imperfections that exist in no small degree in medical practice, and which regular practitioners would do well to turn over in their minds, thereby to enable them to ascertain, with accuracy, the specific or active properties resident in powerful remedies.

Thus much have I deemed it necessary to say, in support of my opinion of, and predilection for, the *Salix Latifolia*, which I would have done long ago, had health permitted. I now, Gentlemen, take the liberty of thus addressing you on the subject, hoping you will allow these my observations a place in your valuable Repository; and respectfully solicit your attention, particularly to what relates to the commencement of my Paper, as it is with me a matter of no small importance.

I am, &c.

Sunderland, Sept. 13, 1804. G. WILKINSON.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IT is as easy to know some men by their style and turn of sentiment as by their faces. Few of your Readers, I apprehend, will doubt, nor have I much hesitation in considering my friend, Dr. Kinglake, as the author of the letter signed CANDIDUS, in your last Journal. I trust he will not quote it as evidence in the second edition of his DISSERTATION ON GOUT, provided I shall not be able to convince him and the world of the dangerous tendency of his doctrine before a second edition be called for. The Doctor thought it right to advertise for the real signature of E. O. and found him to be a very modest, ingenuous young

 man,

man, with, as he declares himself, very little experience. The same step was unnecessary, or I am grossly mistaken, with regard to PERSCRUTATOR; for who wrote that letter, I think, he who runs may read. But the Doctor does not seem very delicate in his selection of materials, in assisting him to make a book: however, as this last letter really does him so much credit on the score of *candour* at least, I am surprised that he should not have thought it right to have had his own name affixed to it. So far are we indebted to the word *liberal* in one of my letters, which I acknowledge to have produced the very effect I intended; and I congratulate the Doctor on his recovery from the influence of that *unlucky* letter of *A Constant Reader*, which gave him so much cruel cause of offence. I hope, in future, he will attempt "*nihil facere per iracundiam;*" as he will now be able to judge dispassionately, how easy it is for intemperate zeal to injure the cause it is intended to support. To make more sure of the matter, however, I shall introduce the Doctor to my friend Leibnitz, who shall tell him a story about a Leyden cobler.

"Quand on disputoit des Théses a l'Université de Leyde, un cordonnier ne manquoit jamais de se trouver a la dispute publique. Enfin, quelqu'un qui le connoissoit lui demanda, s'il entendoit le Latin? *Non,* dit-il, *& je ne veux pas méme me donner la peine de l'entendre.* "Pourquoi venez-vous donc si souvent dans cet auditoire, ou l'on ne parle que Latin?" *C'est que je prends plaiser à juger des coups.* "Et comment en jugez-vous sans savoir ce qu'on dit?" *C'est que j'ai un autre moyen de juger, qui a raison.* "Et comment?" *C'est que quand je vois à la mine de quelqu'un qu'il se fache, & qu'il se met en colere, je juge que les raisons lui manquent.*"

But to our subject. The Doctor says, "*All this, it must be confessed, is new, not unplausible, and has a very generalizing tendency.* That it is new, and has a very generalizing tendency I admit; but I also hope that the Doctor will be *candid* enough not to press the other point, when he has been so repeatedly told, that his doctrine is not only very *unplausible,* but very *dangerous* too. A City Alderman, for instance, or a *Common-council-man,* nay, even my Lord Mayor himself, with two pounds of turtle, as much venison, and three or four bottles of claret under his belt, may follow the Doctor's directions if they please; but I hope, nevertheless, I shall prove it unfit for ordinary patients.

I read as much of the DISSERTATION ON GOUT as I could

could, with a view to find out, "*that the disease is merely local, and unknown as a constitutional complaint;*" and own I missed it, unless it be contained in the following passage, page 19, "*That various causes connected with temperature, diet, and constitution, operating on systematic excitability, may from accidental preponderance of motive susceptibility on the ligaments and tendons, finally exert a concentrated or inflammatory influence on those parts, and thus induce the formal character of gout!*" I labour to be perspicuous, and really, sometimes at least, flatter myself that I am so; and know not what in my writings can be called "*elaborate and inexplicable suppositions, and theoretic declamation,*" by the author of the above rhapsody. The last and most *plausible* charge, which the Doctor brings against me is, that I profess to cure relaxation by relaxing means. I plead guilty to the charge; and will endeavour to explain this seeming paradox in a few words on this, because I have done it more at large on other occasions. By the application of steam then, and removing a part of the pressure of the atmosphere, I apprehend the paroxysm is often carried off at once along with the disposition in the parts to resist by a fruitless struggle its distensive power, or what the Doctor calls, "*its decomposition of organic structure by combustive force.*" I do not wonder that the Doctor from all his reasoning, should not know, that heat is more easily excited in young than in old subjects, and I suppose that he does not read Mr. Rigby's book, lest he should be convinced of this truth; alas! *nemo scit quam nescit.*

But facts are what the Doctor wants, and perhaps the following, which I am truly sorry at the necessity of recording, will suffice.

To the REV. J. N. FREEMAN,
Hayes, near Southall, Middlesex.

Rev. Sir,

Though an entire stranger to you, I shall make no apology for addressing you on a subject which at present occupies much attention, and nearly concerns the well-being of thousands.

I have heard that Mr. Baker, a medical gentleman, of Uxbridge, died lately after having applied cold water, or ice, to the lower extremities, while labouring under gouty inflammation.

Mr. Reynolds, of Oxford Street, has assured me, that you will consider it a duty you owe society to communicate what you know of this matter; and I trust you will have

have no objection to do so to me, who am at present *conscientiously* combating the principle; and that you will not object, provided your statement suit my purpose, to permit me to lay it before the public.

"I am,
"Rev. Sir,
"Your's most obediently,
August 21, 1804. "RALPH BLEGBOROUGH."

To DR. BLEGBOROUGH,
Margaret Street, Cavendish Square, London.

"Sir,

"The Rev. Mr. Freeman, of Hayes, shewed me a letter yesterday from you, which I thought it right to communicate to the family of the gentleman lately deceased; and as they are extremely desirous, that all personal controversy should be avoided, they have requested me to inform you, that no detail of the case can be given to any person.

"Should circumstances, however, occur to induce them to alter their opinion, I propose to commuuicate it myself to the public, through the medium of the Medical and Physical Journal. "I am,
"Sir,
Uxbridge, "Your's, very respectfully,
August 24, 1804. "A. EDLIN."

"There is a holy mistaken zeal in" Medicine "as well as in Religion. By persuading others we convince ourselves. The passions are engaged, and create a maternal affection in the mind, which forces us to love the cause for which we suffer." Out of tenderness to the friends of the deceased then, and that I may not increase the Doctor's at tachment to his opinions by intemperate opposition, I think it most prudent to forego all comments on the above correspondence. In return, I trust, he will not call for more proofs from me; not because I am unprepared to give them, but because I am *tremblingly alive* to the feelings of other families, and other physicians. That such cases have not occurred to himself, can only arise from a contracted sphere of practice. That they may not occur to him in future, I trust he will avail himself of the fell experience of others. After having been prosecutor, counsel, and evidence, in his own cause, the Doctor *candidly* though reluctantly declines being judge, and calls on the public. I am satisfied with, and reverence the tribunal, and am confident of its verdict. I hope, however, I need not

not repeat, that I am far from wishing to explode altogether the abstraction of heat from parts labouring under gouty inflammation; for the truth of the matter is, that I do not think my experience, considerable as it has been, as yet sufficient to justify me in giving a decided opinion on a subject of so much importance.

I beg pardon if I have betrayed any warmth during this Controversy, which, I hope, is now brought to a close. In entering into it, I declare solemnly I was actuated by very different motives to what have been attributed to me. I, who am very irritable myself, should be the last person in the world to blame Dr. Kinglake for impetuosity. I am very sensible that, along with every other good thing, we receive our tempers and dispositions also from the Author of our being; and "*that it was He who made us, and not we ourselves.*"

I am, &c.

Margaret Street, Sept. 3, 1804. RALPH BLEGBOROUGH.

P. S. As a member of the Committee, I take leave to inform your Bedfordshire Correspondent and Subscriber to Dr. Garnett's work, that it will be out very soon; in all probability, in the course of a month. I would willingly (as well on account of its intrinsic merit, as on behalf of his orphan children) and am sure I can confidently, recommend it to every medical gentleman and philosopher in the united kingdom. Nor do I think I can better close this communication, than with an extract from the Lecture on Gout.

"If the Gout were of a sthenic or inflammatory nature, might we not ask, why the causes which produce it, do not produce it in the meridian of life, when they produce their greatest effect, and when real sthenic diseases are most apt to occur? Or, why the symptoms of the inflammation, like all other sthenic inflammations, are not relieved by the debilitating plan? The contrary, however, points out to us clearly the nature of the disease: the gout is not a sthenic disease, nor a disease of strength; it does not depend on increased vigour of the constitution, and plethora; but is manifestly asthenic, like all the rest of the asthenic diseases. The mode of living is such as brings on indirect debility, or exhaustion of the excitability, such as the use of rich and highly seasoned food, and a daily use of fermented liquors. These, at first, certainly produce vigour, or strength, and will be the cause of sthenic diseases; but they are generally taken in such a manner, that

that though they produce a degree of excitement above the point of health, still they only approach the line of sthenic disease, without in general falling into it. They continue, however, to exhaust the excitability, and by the time that the vigour of the body begins naturally to decline, the system of a person who has lived in this manner is unusually torpid. All the blood-vessels, which have been hitherto distended with rich blood, begin to lose their tone, from their excitability having been exhausted by the use of these powerful stimulants; but this torpor is particularly and first experienced in those parts, which have been more immediately subject to the action of the exciting causes, viz. the stomach and bowels: symptoms of indigestion occur, and the excitability of these organs having been almost entirely exhausted by the violent action of the stimulants applied, cannot now be roused to any healthy action; the food is not properly digested, but runs into a kind of fermentation, which causes an extrication of gas; this distends the stomach and bowels, and produces pains, uneasy eructations, and all the distressing symptoms of indigestion. Nor is this in the least surprising, when we consider that many people, who have brought on complaints of this kind, have been in the habit of eating heartily of rich and highly seasoned animal food, and of drinking from a pint to a bottle of wine, and perhaps a quantity of malt liquor, almost every day of their lives, for years. This mode is sufficient to wear out the powers of the stomach, were it three times as capacious as it is; and of the constitution, were it ten times as strong.

"When a torpor, or state of exhausted excitability of the whole system, has been induced in this manner, and symptoms of indigestion produced, any directly debilitating cause applied to the extremities, adding to the indirect debility, causes a total torpor or inactivity of the minute vessels of the part, and thus totally destroys the balance between the propelling and resisting force; hence the vessels will be morbidly distended with blood, a swelling and redness will take place, and an asthenic inflammation produced in the way which I fully pointed out in the last Lecture will be established. Hence the pain and other symptoms which accompany a fit of the gout; hence likewise we see, why debilitating powers, applied to the part, will not reduce the inflammation; and why a warmth, which aggravates every really sthenic inflammatory affection, is so comfortable in this."

A Me-

A Meteorological Table, by Dr. HIGGINS, *of Brompton.*

Days of the Month.	Thermometer.			Height of the Barometer. Inches.			Weather.
	8 o'Clock Morning.	Noon.	10 o'Clock Night.	8 o'Clock Morning.	Noon.	10 o'Clock Night.	
1804.							
Aug. 20	58°	62°	60°	29.98	29.96	29.96	Cloudy.
21	60	62	59	30.02	30.02	30.03	Cloudy.
22	58	62	57	.09	.10	.18	Cloudy.
23	58	60	57	.33	.36	.36	Cloudy.
24	58	62	59	.40	.35	.33	Fair.
25	57	62	60	.35	.38	.41	Cloudy.
26	60	64	61	.52	.49	.45	Fair.
27	61	65	62	.41	.37	.29	Fair.
28	63	67	65	.32	.31	.30	Fair.
29	68	72	70	.29	.24	.11	Fair.
30	70	74	70	29.96	29.94	30.00	Fair.
31	71	73	70	30.14	30.08	30.06	Fair.
Sept. 1	68	70	66	.11	.18	.29	Fair.
2	64	66	64	.34	.35	.32	Fair.
3	64	66	63	.34	.35	.36	Fair.
4	65	69	67	.46	.45	.44	Fair.
5	68	70	66	.44	.38	.35	Fair.
6	67	70	65	.22	.14	.03	Fair.
7	66	70	64	.04	.12	.15	Fair.
8	65	70	63	.33	.32	.35	Fair.
9	65	70	62	.35	.27	.26	Fair.
10	63	68	63	.12	.09	.07	Cloudy.
11	65	70	64	.24	.28	.33	Fair.
12	66	78	68	.32	.21	.15	Fair.
13	67	76	70	.11	.09	.06	Fair.
14	66	76	70	.03	29.96	29.94	Fair.
15	68	75	69	29.99	.96	.94	Fair.
16	69	78	70	30.04	30.09	30.16	Fair.
17	68	72	64	.23	.26	.29	Cloudy.
18	64	66	63	.31	.34	.30	Cloudy.
19	63	65	63	.27	.21	.17	Fair.

The monthly communications of Dr. H. will be particularly acceptable to the Editors; but they wish him to state, for the information of their readers who reside at a distance from the Metropolis, the elevation of his house above the river Thames, at Chelsea, and the direction of it on the compass from St. Paul's, that the course of the winds on the respective days may be taken into the account, which will much increase the value of the information.

Account of Diseases in an Eastern District of London, from August 20 to Sept. 20, 1804.

ACUTE DISEASES.	
Typhus	3
Pneumonia	2
Dysenteria	3
Cholera	4
Rheumatismus Acutus	7
CHRONIC DISEASES.	
Tussis	9
Dyspnœa	5
Tussis cum Dyspnœa	10
Pleurodyne	2
Phthisis Pulmonalis	3
Hydrothorax	5
Ascites	4
Hysteria	4
Chlorosis	5
Diarrhœa	15
Colica	3
Gastrodynia	10
Cephalalgia	5
Herpes	2
Prolapsus Vaginæ	1
Menorrhagia	4
Ischuria	1
Vermes	3
Podagra Atonica	1
Rheumatismus Chronicus	15
PUERPERAL DISEASES.	
Ephemera	7
Menorrhagia Lochialis	8
Mastrodynia	4
INFANTILE DISEASES.	
Tabes Mesenterica	1
Aphthæ	4
Vermes	2
Diarrhœa	6
Dentition	1

MEDICAL AND PHYSICAL INTELLIGENCE.

[FOREIGN AND DOMESTIC.]

Method of preparing Gallic Acid, by Mr. Fiedler.

Boil one ounce of galls in sixteen ounces of water till it is reduced to eight ounces; separate the extractive matter from the acid by mixing with the liquor as much of pure argil as would make two ounces of sulphat of argil, and after some time filtrate the liquor. According to the author, the tannin, the extractive matter, and all the heterogeneous bodies, will remain on the filtre, combined with the argil, while the gallic acid is dissolved in the liquor that passes through.

Dr. Keutsch, a very able physician, resident in the Danish Island of Santa Cruz and St. Thomas, in the West Indies, has lately discovered a new method, and hitherto very successful, of treating the fevers of those Islands, so fatal to Europeans. His process

process consists in frictions by oils. The first idea of this method he derived from the Theory of Dr. Scheel, of Copenhagen, on the use of oil in the plague: A theory which is to be found printed in the work of Baldwyn. Of eight soldiers that were entrusted to the care of Dr. Keutsch, six were happily delivered from the fever, at the end of twenty-four hours, by means of these frictions. They produced violent sweats, and always put a stop to vomiting. The doctor, in some particular cases, rendered the virtues of the oil still more efficacious, by adding camphor to it. This discovery is, of course, very valuable, as the fever cured is precisely the same as that which has made such cruel ravages in St. Domingo.

M. Tommasi, a Neopolitan chemist of some celebrity, who has been several years at Paris, has lately made many experiments to prove the power of the muriat of soda, or kitchen salt, in destroying the long white worms which are found in the intestinal canal. When he put those worms into a solution of an ounce of salt in fifty ounces of water, they did not live more than twenty-four minutes; but when the same quantity was dissolved in eight ounces of water, they lived only eight minutes. Hence he infers, that the method of curing this malady is easy and effectual.

Professor Paschmann, of St. Petersburgh, has invented an anemometer, by which the strength of the wind may be exactly measured; and, by means of other instruments, which are easily adjusted to it, such as a hygrometer, themometer, and barometer, a variety of physical experiments may be conducted with the greatest convenience.

A letter from the Honourable Frederick North, Governor of Ceylon, to the Right Honourable Lord Hobart, dated Jan. 1, 1804, received by Lord Camden, one of his Majesty's principal Secretaries of State, and communicated by his Lordship to the Royal Jennerian Society, contains the following information.

"Vaccination was unfortunately suspended, in some degree, while the English medical gentlemen attended the army at Kandy; and a spurious virus had been made use of in the northern district, the failures occasioned by which had discredited that beneficial practice. Genuine vaccine matter has, however, been sent thither, and confidence is restored throughout all these settlements, in that mode of inoculation. At Columbo, it is kept up with some difficulty, for want of subjects, as almost all the inhabitants of that neighbourhood have had the small-pox, in some manner or other; and the salutary consequences of the attention of government to that object, appears in the total absence of that disease from the province during the last six months; a circumstance hitherto unknown."

A Director General of Vacciolation has been appointed in the Italian Republic, to superintend all the inoculations of Cow-pock throughout

throughout the Departments, the professional Members of which, are obliged to transmit him an account of their several proceedings.

A Case has occurred in Fullwood's Rents, Holborn, of supposed small-pox after vacciolation; but at a very large meeting of the profession this day, (Sept. 26) it was the general opinion that it was not small-pox. Most of the gentlemen who entertained the first idea, declined appearing; while the few who had considered the eruption as varicella, were confirmed in their conclusion by the observations of those who had not previously seen the case.

Theatre, London Hospital.

Mr. Headington and Mr. Frampton, will commence their First Course of Lectures upon Anatomy, Physiology, and the Principles and Operations of Surgery, on Monday, October 1, at two o'clock.

Demonstrations and Dissection as usual, by Mr. Armiger.

A series of Lectures upon Surgery, illustrated by Cases under Treatment, will be delivered during the winter by Sir William Blizard, Mr. Thomas Blizard, and Mr. Headington, surgeons of the Hospital.

On the 1st of October, also, Dr. Cooke will commence a course of Lectures upon the Practice of Physic; and Dr. Dennison upon the Theory and Practice of Midwifery.

Dr. Bradley's Lectures on the Practice of Medicine will commence on Friday the 5th of October next, at his house, No. 25, Parliament Street.

Dr. John Reid, senior Physician of the Finsbury Dispensary, intends to deliver, in the present winter, a Course of Lectures on the Theory and Practice of Medicine.

Mr. Thomas will commence his Lectures on the Principles and Operations of Surgery, on Monday, October 8, at his house in Leicester Square; where printed particulars may be had, and at the Anatomical Theatre in Windmill-street.

Mr. Moor, Surgeon Dentist to her Royal Highness the Duchess of York, will commence a Course of Lectures on the Structure and Diseases of the Teeth, on Monday the 5th of November; in which will be explained, the complete Practice of the Dentist.—Further particulars may be known by applying at his house, No. 6, Palsgrave Place, Temple.

To CORRESPONDENTS.

The unusual influx of original matter, has obliged us to postpone our Analysis of Books, as well as several valuable Communications.